

**LESSON 8: Fact Masters – Multiplication**

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**[OBJECTIVE]**

The student will develop the concepts and skills for mastery of multiplication facts 0–9.

**[PREREQUISITE SKILLS]** knowledge of the numbers 0-9

**[MATERIALS]**

Student pages **S73 – S81**

Transparencies **T196, T198, T199, T200, T201, T202, T208, T209, T214, and T215**

Copies of T212 or T213 on quiz days

Copies of T210 (1 set of numbers per student)

Copies of T211 (1 per student pair)

Scissors

Fact Masters Curtain

Colored pencils

Gridded index cards

Beans (81 per student pair)

2 cups for each pair

Paper clips

Hole punch

Masking tape

Phase 2 - **T208, T209, T214, T215, T216-T222, and T223**

**[ESSENTIAL QUESTIONS]**

1. How can multiplication facts be modeled using manipulatives?
2. What techniques can be used to practice multiplication facts?
3. Why is it important to be fluent in multiplication facts?

**[WORDS FOR WORD WALL]**

groups, items, array

**[GROUPING]**

Cooperative Pairs (CP), Whole Group (WG), Individual (I)

\*For Cooperative Pairs (CP) activities, assign the roles of Partner A and Partner B to students. This allows each student to be responsible for designated tasks within the lesson.

**[LEVELS OF TEACHER SUPPORT]**

Modeling (M), Guided Practice (GP), Independent Practice (IP)

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**[MULTIPLE REPRESENTATIONS]**

SOLVE, Graph, Verbal Description, Concrete Representation, Pictorial Representation, Graphic Organizer, Algebraic Formula

**[\*NOTE]**

This lesson has two phases. Phase 1, which is intended to be presented in two days, models the instruction of multiplication facts from the concrete through the pictorial to the abstract. Phase 2 consists of the daily practice techniques and weekly assessment materials for Fact Masters. The procedures and processes of the Fact Masters lesson have been specifically designed to scaffold student learning of multiplication facts. Following the outlined steps is crucial to the success of the program in facilitating student mastery.

**[WARM-UP] (5 minutes – IP, I, WG) S73 (Answers on T195.)**

- Have students turn to S73 in their books to begin the Warm-Up. Students will work with repeated addition. Monitor students to see if any of them need help during the Warm-Up. Give students 2–3 minutes to complete the problems and then spend 2 minutes reviewing the answers as a class. {Verbal Description}

**[HOMEWORK] (5 minutes)**

Take time to go over the homework from the previous night.

**[LESSON] Day 1: (60 minutes – M, GP, IP, CP, WG) Day 2: (60 minutes – M, GP, IP, CP, WG)**

-----**Day 1 for Phase 1**-----

**SOLVE Problem (3 minutes – GP, WG) T196, S74 (Answers on T197.)**

Have students turn to S74 in their books, and place T196 on the overhead. The first problem is a SOLVE problem. You are only going to complete the S step with students at this point. Tell students that during the lesson they will learn how to build and practice multiplication facts for mastery. They will use this knowledge to complete this SOLVE problem at the end of the lesson. {SOLVE, Graphic Organizer}

**Concrete Modeling of Groups and Items (25 minutes – M, GP, IP, WG, CP) T196, T210, T211, S74 (Answers on T197.)**

**25 Minutes – M, GP, WG, CP:** Separate students into cooperative pairs. Make sure that the students in each pair are seated beside each other, facing the same way, for this activity. Use the following activity to help students model multiplication facts concretely. {Concrete Representation, Verbal Description}

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## MODELING

## Concrete Modeling of Groups and Items

**Step 1:** Provide 2 cups, a copy of T211, two sets of numbers from T210, and 81 beans for each students pair. Have pairs label one of their cups with a “G” for groups and one with an “I” for items. Have students cut out the two sets of the numbers 1–9 from T210 and place one set in each cup. Then have students cut out the nine rectangles from T211.

**Step 2:** Tell pairs that the partner sitting on the left will place the “G” cup in front of him/her, and the partner sitting on the right will place the “I” cup in front of him/her. Explain to students that the “G” will represent the number of **groups** that they will make, and the “I” will represent the number of **items** (beans) in each group.

**Step 3:** Model the process for students.

The “G” person will take a number from the “G” cup. This number will tell the cooperative pair how many groups they will create. (Explain to students that they will use the rectangles cut from T211 to represent the groups.) The “I” person will take a number from the “I” cup. This number will tell the cooperative pair how many items will be in each group. Tell students that they will form “G” groups of “I” beans.

Have students practice two examples of building groups with items. Have students in each pair draw the number of groups and the number of items randomly from the labeled cups and then arrange “G” groups of “I” beans. Make sure that in each group the “G” cup is on the left and the “I” cup is on the right. Students can take turns drawing numbers from each cup to build the groups.

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**Step 4:** Have students look at Recording Sheet 1 on S74. Tell students to write a “G” over the first column of squares and an “I” over the second column of squares. Demonstrate on the board while students write on Recording Sheet 1.

Model the example of choosing a 2 from the “G” cup and a 3 from the “I” cup, and then make 2 groups of 3 beans. Ask, “How many groups are there?” (2) “How many items are in each group?” (3) “How many total beans are there?” (6) “Two groups with 3 items in each group is 6.”

	<b>G</b>	<b>I</b>	
Example:	2	3	6

For each of the remaining five problems on Recording Sheet 1, have students draw each of the numbers to write in the “G” and “I” squares, make “G” groups of “I” beans, and then write the product in the third square.

**Practice with Wording of Groups and Items** (10 minutes – M, GP, IP, CP, WG)  
T198, S75

Have students turn to S75 in their books, and place T198 on the overhead. Tell students to write a “G” over the first column and an “I” over the second column. Model with students how to choose numbers randomly from the “G” and “I” cups and then form “G” groups of “I” beans. Fill in the blanks for the first two examples on Recording Sheet 2.

Examples:  $\underline{2}$  group(s) with  $\underline{3}$  item(s) per group =  $\underline{6}$   
 $\underline{1}$  group(s) with  $\underline{0}$  item(s) per group =  $\underline{0}$

Have students complete the four remaining problems on Recording Sheet 2.  
**{Concrete Representation, Verbal Description}**

**Practice with the Multiplication Symbol** (10 minutes – M, GP, IP, CP, WG)  
T199, S76

Have students turn to S76 in their books, and place T199 on the overhead. Tell students to write a “G” over the first column and an “I” over the second column. Model with students how to choose numbers randomly from the “G” and “I” cups and then form “G” groups of “I” beans. Fill in the blanks for the first example on Recording Sheet 3.

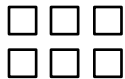
Example:  $\underline{2}$  group(s) •  $\underline{3}$  item(s) per group =  $\underline{6}$

Have students complete the remaining five problems on Recording Sheet 3.  
**{Concrete Representation, Verbal Description}**

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**Practice with Multiplication Facts (12 minutes – M, GP, IP, CP, WG) T200, S77**

Have students turn to S77 in their books, and place T200 on the overhead. Have students write a “G” above the first column of squares and an “I” above the second column of squares. Model with students how to choose numbers randomly from the “G” and “I” cups and then form “G” rows of “I” beans. The example below shows 2 rows of 3.

Example: 

Tell students that this is read as 2 times 3 and can be written as  $2 \cdot 3$ . Complete the number sentence to show the product:  $2 \cdot 3 = 6$ .

Example:  $\boxed{2} \cdot \boxed{3} = \boxed{6}$

Continue to have students practice by completing Recording Sheet 4. {Concrete Representation, Verbal Description}

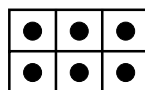
-----**Day 2 for Phase 1** -----  
**[NOTE: THERE IS NO WARM-UP FOR DAY 2. POST THE FACT MASTERS CURTAIN IN THE ROOM TO USE DURING DAY 2.]**

**Use Arrays (53 minutes – M, GP, IP, CP, WG) T201**

Pass out two gridded index cards and colored pencils to each cooperative pair of students, and place T201 on the overhead. Use the following activity to move students to the pictorial level of understanding multiplication facts.  
 {Concrete Representation, Verbal Description, Pictorial Representation}

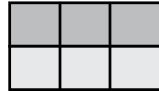
**MODELING****Use Arrays**

**Step 1:** Model with students how to represent the problem  $2 \cdot 3$  using beans and the grid on T201 to form an array. Explain that the term **array** describes an arrangement of objects in equal rows and equal columns. Have pairs use beans and a gridded index card to form an array. Point out that the example shows the array of  $2 \cdot 3$ .



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**Step 2:** Model with students how to transfer the concrete representation of  $2 \cdot 3$  by shading the grid on T201, as students shade one of their gridded index cards, using different colors for each row. For example, one row could be shaded red and another row could be shaded blue. One mistake students often make is to color the columns instead of the rows. Watch for this and correct as necessary.



**Step 3:** Model with students how to write the verbal description at the top of the card: 2 groups of 3 items;  $2 \cdot 3 = 6$ .

**Step 4:** Ask one pair of students for their completed card. (Check to make sure it is correct.) Model how to read the card “2 groups of 3 items or  $2 \cdot 3 = 6$ ”—and how to “publish” the card by taping the card to the correct space on the Fact Masters Curtain.

**Step 5:** Have pairs choose numbers randomly from their “G” and “I” cups and build the indicated array using beans and their other gridded index card. Have students shade their gridded index cards to show their array and write the verbal description of the array at the top of the card. Then, have students come up in pairs to publish their card. Check the array as they come up to ensure that it is correct. Encourage students to offer positive feedback to their classmates for their work. After all student pairs have published index cards on the grid, there will be remaining spaces where no one has published. Assign spaces to different students and have them create the cards to correctly fill the spaces. If all spaces are not filled by the end of the lesson, use the grid as a center activity, supplying index cards, centimeter paper, colored pencils, etc.

When this activity is completed, students will have completed the concrete, pictorial, and abstract representations to build the concept of multiplication.

**SOLVE Problem****(5 minutes – GP, WG) T202, S78 (Answers on T203.)**

Have students turn to S78 in their books, and place T202 on the overhead. Remind students that the SOLVE problem is the same one from the beginning of the lesson. Complete the SOLVE problem with your students. Ask them for possible connections from the SOLVE problem to the lesson. (The problem asks students to work with an array.) **{SOLVE, Verbal Description, Pictorial Representation, Graphic Organizer, Algebraic Formula}**

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**If time permits...****(10 minutes – IP)**

Have students come up with a list of situations where they will use multiplication facts this year.

**Possible Answers:** Fractions, decimals, finding the area of figures, probability, etc.

**[CLOSURE] (2 minutes)**

To wrap up the lesson, go back to the essential questions and discuss them with students.

- How can multiplication facts be modeled using manipulatives? (*building arrays, showing groups and items to read a fact correctly*)
- What techniques can be used to practice multiplication facts? (*building the facts using manipulatives*)
- Why is it important to be fluent in multiplication facts? (*to help when solving problems, especially word problems that involve multiplication facts*)

**[HOMEWORK]** Assign S79 for homework. (Answers on T204.)

**[QUIZ ANSWERS] T205–T207**

1. **B**    2. **C**    3. **D**    4. **C**    5. **A**    6. **D**    7. **C**    8. **D**    9. **B**    10. **C**

The quiz can be used at any time as extra homework or to assess how students progress on understanding and learning multiplication facts.

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## -----Phase 2-----

**Fact Master Quiz****(Weekly, 6–8 minutes – M, GP, IP, WG)  
T208, T209, T212–T215, S80, S81**

There are 2 quizzes, Form A on T212 and Form B on T213. A quiz is to be given each week, using alternating quizzes. The quizzes should be given on the same day each week at the same time. Make sure students understand that these quizzes will not be used for a grade, but will be used instead to chart their progress with the multiplication facts. There is a record sheet for students to monitor their own progress on S80, T208.

On quiz day, have students take Quiz A or Quiz B, allotting them exactly two and a half minutes to do so. Tell students to complete the facts they know first and then return to the facts they are unsure of or do not know. Upon completion of the quiz, have students highlight or circle the incorrect items, based on teacher-provided answers. Use T214 or T215 for students to correct their quizzes.

Students will then create a Fact Master Clip using index cards and a paper clip. Have students choose 10 or fewer facts from the highlighted facts on their quizzes. These will be their practice facts for the week. Have students write each practice fact on one side of an index card (e.g., “ $6 \cdot 8 =$ ”) and then turn over the card and write the fact with its product on the back (e.g., “ $6 \cdot 8 = 48$ ”). Have students punch a hole in each card and attach them to the paper clip. Tell students that they will use these clips to practice the facts during any free time during the day. The Fact Master Clips can also be taken home. To practice facts, students should flip through them, saying the fact and immediately providing the product. If students have difficulty, they should repeat the fact 3 times, and then turn the card over and repeat the fact and the product written on the back of the card 3 times. Students can also have another student or adult verbally quiz them on the facts.

Explain to students that when they believe they have mastered a fact, they may remove that fact from the clip and replace it with another fact chosen from the highlighted items on the quiz. Once a student believes that the fact is mastered, that product can be shaded on the multiplication grid on S81, T209. Explain that if the student shades in the product, that gives the teacher the right to assume the student has mastered the fact and can give the student the fact at any time and expect her/him to know it immediately. **{Verbal Description, Graph}**



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**Choral Drill****(Daily, 2–3 minutes – M, GP, WG) T216–T222**

A Fact Master Choral Drill CD or DVD is provided for your classroom. Each track is designed to last about 3 minutes. You may use this or choose to use the alternative method described at training. Pages for Choral Drill are found on T216–T222. {Verbal Description}

**Certificate****(0–1 minute) T223**

The certificate is for the student who completes a certain percent of mastery on their quizzes. For example, the certificates may be given for 90% mastery for two consecutive weeks. The teacher may set the criteria at any level she/he sees fit. When students reach 100% accuracy, it is useful to challenge them to do so in shorter time periods (2 minutes, etc.). We suggest that teachers make two copies of the certificate—one for classroom display and the other to be taken home. Allow students time to color and decorate the certificate.

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Here is the key to **S73**.

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**Warm-Up**

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**Directions:** Complete the following addition problems.

**1.**  $4 + 4 + 4 = 12$

**2.**  $3 + 3 + 3 + 3 + 3 = 15$

**3.**  $4 + 4 + 4 + 4 + 4 = 20$

**4.**  $7 + 7 + 7 + 7 + 7 + 7 = 42$

**5.**  $2 + 2 + 2 + 2 = 8$

**6.**  $7 + 7 + 7 = 21$



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Here is the key to **S74**.

**Directions:** Complete the following SOLVE problem with your teacher. You will only complete the S step.

Ms. Martin bakes cookies for the local bakery. She bakes them on rectangular cookie pans in straight rows. She puts six cookies in each row, and there are eight rows of cookies on each pan. How many cookies can she bake on one pan? Draw a picture of one cookie pan to help you solve this problem.

**S** Underline the question.  
 This problem is asking me to find **the number of cookies Ms. Martin can bake on one pan.**

**Recording Sheet 1**

**Directions:** Complete the recording sheet below with your teacher and partner.

<b>G</b>	<b>I</b>	
<b>2</b>	<b>3</b>	<b>6</b>





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## TRANSPARENCY MASTER for S77

**Directions:** Complete the recording sheet below with your teacher and partner.

## Recording Sheet 4

$\square$	•	$\square$	=	$\square$
$\square$	•	$\square$	=	$\square$
$\square$	•	$\square$	=	$\square$
$\square$	•	$\square$	=	$\square$
$\square$	•	$\square$	=	$\square$





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## TRANSPARENCY MASTER for S78

**Directions:** Complete the following SOLVE problem with your teacher.

Ms. Martin bakes cookies for the local bakery. She bakes them on rectangular cookie pans in straight rows. She puts six cookies in each row, and there are eight rows of cookies on each pan. How many cookies can she bake on one pan? Draw a picture of one cookie pan to help you solve this problem.

**S** Underline the question.

This problem is asking me to find \_\_\_\_\_  
\_\_\_\_\_.

**O** Identify the facts.

Eliminate the unnecessary facts.  
List the necessary facts.

**L** Choose an operation or operations.

Write in words what your plan of action will be.

**V** Estimate your answer.

Carry out your plan.

**E** Does your answer make sense? (Compare your answer to the question.)

Is your answer reasonable? (Compare your answer to the estimate.)

Is your answer accurate? (Check your work.)

Write your answer in a complete sentence.

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Here is the key to **S78**.

**Directions:** Complete the following SOLVE problem with your teacher.

~~Ms. Martin bakes cookies for the local bakery.~~ | She bakes them on rectangular cookie pans in straight rows. | She puts six cookies in each row, | and there are eight rows of cookies on each pan. | How many cookies can she bake on one pan? Draw a picture of one cookie pan to help you solve this problem.

**S** Underline the question.

This problem is asking me to find **the number of cookies Ms. Martin can bake on one pan.**

**O** Identify the facts.

Eliminate the unnecessary facts.

List the necessary facts. **Six cookies in each row, eight rows in each pan, rectangular pan**

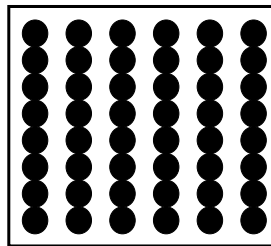
**L** Choose an operation or operations. **Multiplication**

Write in words what your plan of action will be.

**Draw a picture of one pan of cookies. Multiply the rows by the number of cookies in each row to find the number of cookies on one pan.**

**V** Estimate your answer. **About 50 cookies**

Carry out your plan.



$$8 \cdot 6 = p$$

$$8 \cdot 6 = 48 \text{ cookies}$$

**E** Does your answer make sense? (Compare your answer to the question.)

**Yes, because we are looking for the number of cookies on one pan.**

Is your answer reasonable? (Compare your answer to the estimate.)

**Yes, because it is close to the estimate of about 50 cookies.**

Is your answer accurate? (Check your work.) **Yes.**

Write your answer in a complete sentence. **Ms. Martin can bake 48 cookies on one pan.**

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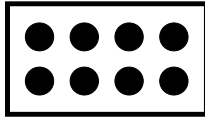
Here is the key to **S79**.

## Homework

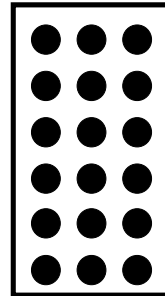
Name \_\_\_\_\_ Date \_\_\_\_\_

**Directions:** Draw arrays to show the following multiplication facts.

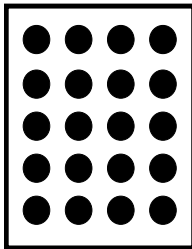
1.  $2 \cdot 4$



2.  $6 \cdot 3$



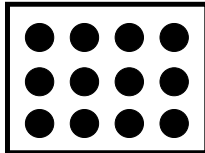
3.  $5 \cdot 4$



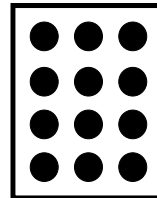
4.  $1 \cdot 9$



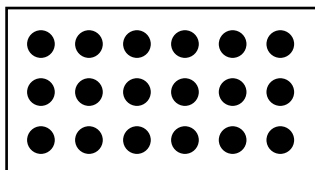
5.  $3 \cdot 4$



6.  $4 \cdot 3$

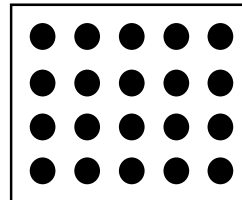
**Directions:** Write a multiplication fact for each of the following arrays.

7.



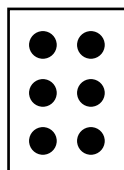
$3 \cdot 6$

8.



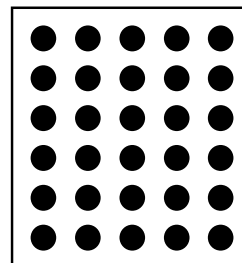
$4 \cdot 5$

9.



$3 \cdot 2$

10.



$6 \cdot 5$

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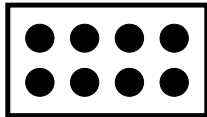
Name \_\_\_\_\_

Date \_\_\_\_\_

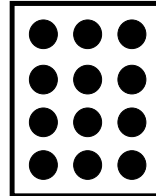
**Quiz**

1. Which array shows  $4 \bullet 3$ ?

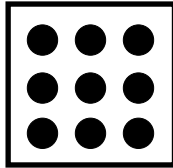
A.



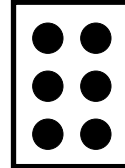
B.



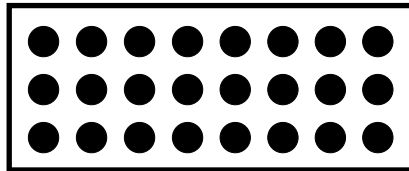
C.



D.



2. What multiplication fact does the following array show?



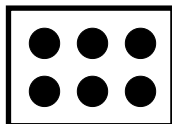
A.  $3 \bullet 4$

B.  $3 \bullet 7$

C.  $3 \bullet 8$

D.  $8 \bullet 4$

3. What multiplication fact does the following array show?



A.  $2 \bullet 2$

B.  $3 + 3$

C.  $6 \bullet 3$

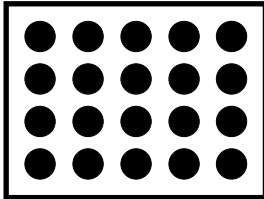
D.  $2 \bullet 3$

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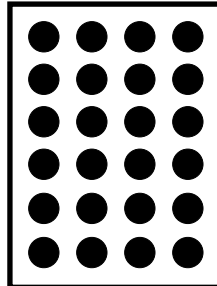
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4. Which array shows  $5 \cdot 6$ ?

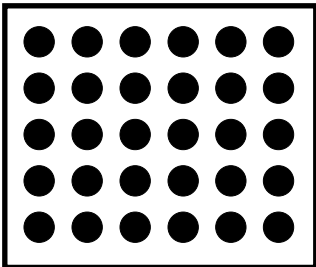
A.



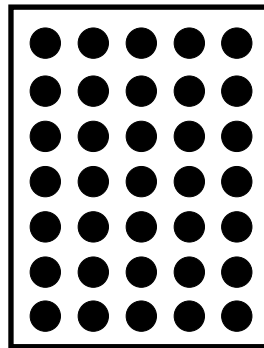
B.



C.



D.

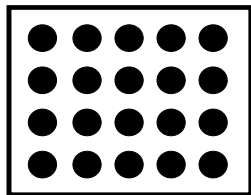


5. What multiplication fact does the following array show?

A.  $1 \cdot 7$ B.  $7 \cdot 7$ C.  $1 + 6$ D.  $7 + 1$ 

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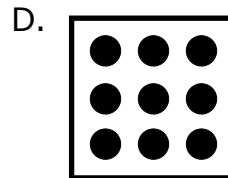
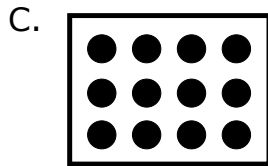
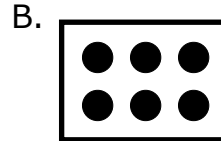
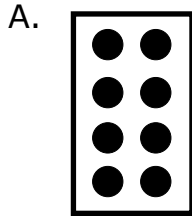
6. What multiplication fact does the following array show?

A.  $5 + 4$ B.  $5 \cdot 5$ C.  $4 + 5$ D.  $4 \cdot 5$

LESSON 8: Fact Masters – Multiplication

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7. Which array shows  $3 \cdot 4$ ?



8. What multiplication fact does the following array show?



A.  $4 \cdot 3$

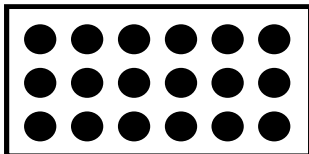
B.  $4 + 1$

C.  $4 \cdot 2$

D.  $1 \cdot 4$

---

9. What multiplication fact does the following array show?



A.  $3 \cdot 7$

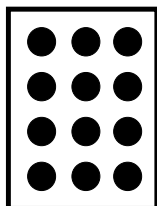
B.  $3 \cdot 6$

C.  $3 + 7$

D.  $3 + 6$

---

10. What multiplication fact does the following array show?



A.  $3 \cdot 3$

B.  $3 + 4$

C.  $4 \cdot 3$

D.  $4 + 3$

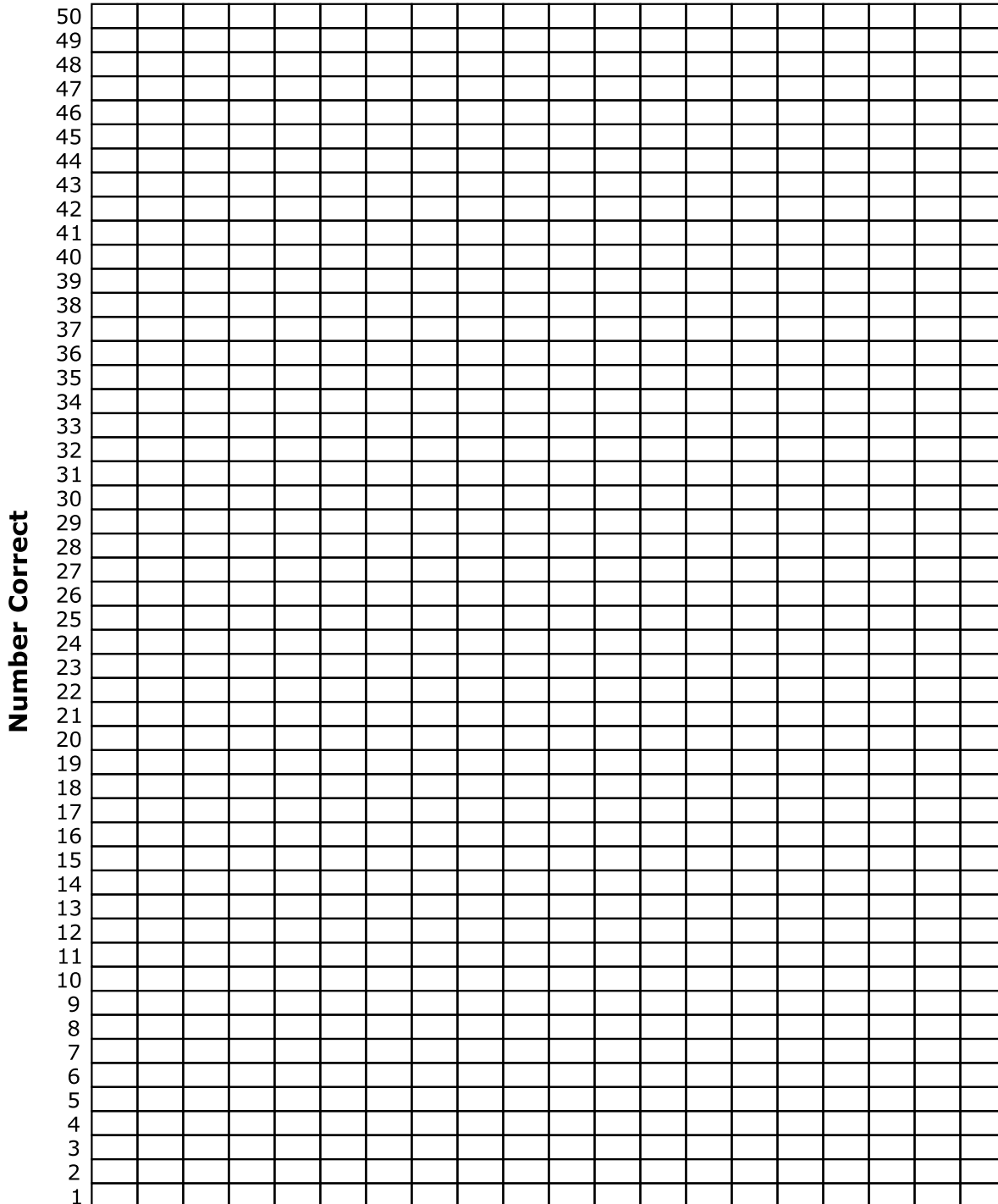
LESSON 8: Fact Masters – Multiplication

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**TRANSPARENCY MASTER for S80**

**Directions:** Follow your teacher’s directions to complete this graph.

**Fact Masters Quiz**



LESSON 8: Fact Masters – Multiplication

**TRANSPARENCY MASTER for S81**

**Directions:** Follow your teacher’s directions to complete the grid below.

**Grid for Basic Multiplication Facts**

Items

	●	0	1	2	3	4	5	<u>6</u>	7	8	<u>9</u>
	0	0	0	0	0	0	0	0	0	0	0
	1	0	1	2	3	4	5	<u>6</u>	7	8	<u>9</u>
	2	0	2	4	<u>6</u>	8	10	12	14	16	18
	3	0	3	<u>6</u>	<u>9</u>	12	15	18	21	24	27
Groups	4	0	4	8	12	16	20	24	28	32	36
	5	0	5	10	15	20	25	30	35	40	45
	<u>6</u>	0	6	12	18	24	30	36	42	48	54
	7	0	7	14	21	28	35	42	49	56	63
	8	0	8	16	24	32	40	48	56	64	72
	<u>9</u>	0	9	18	27	36	45	54	63	72	81



LESSON 8: Fact Masters – Multiplication

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0	1	2	3	4
5	<u>6</u>	7	8	<u>9</u>

0	1	2	3	4
5	<u>6</u>	7	8	<u>9</u>

0	1	2	3	4
5	<u>6</u>	7	8	<u>9</u>

LESSON 8: Fact Masters – Multiplication

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LESSON 8: Fact Masters – Multiplication

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**Multiplication Fact Quiz A**

$7 \cdot 6 = \underline{\hspace{2cm}}$

$9 \cdot 4 = \underline{\hspace{2cm}}$

$7 \cdot 4 = \underline{\hspace{2cm}}$

$2 \cdot 8 = \underline{\hspace{2cm}}$

$6 \cdot 0 = \underline{\hspace{2cm}}$

$4 \cdot 2 = \underline{\hspace{2cm}}$

$6 \cdot 7 = \underline{\hspace{2cm}}$

$2 \cdot 4 = \underline{\hspace{2cm}}$

$0 \cdot 6 = \underline{\hspace{2cm}}$

$3 \cdot 8 = \underline{\hspace{2cm}}$

$5 \cdot 1 = \underline{\hspace{2cm}}$

$5 \cdot 5 = \underline{\hspace{2cm}}$

$3 \cdot 9 = \underline{\hspace{2cm}}$

$0 \cdot 0 = \underline{\hspace{2cm}}$

$8 \cdot 1 = \underline{\hspace{2cm}}$

$2 \cdot 2 = \underline{\hspace{2cm}}$

$7 \cdot 1 = \underline{\hspace{2cm}}$

$2 \cdot 7 = \underline{\hspace{2cm}}$

$9 \cdot 3 = \underline{\hspace{2cm}}$

$9 \cdot 1 = \underline{\hspace{2cm}}$

$6 \cdot 2 = \underline{\hspace{2cm}}$

$9 \cdot 7 = \underline{\hspace{2cm}}$

$5 \cdot 7 = \underline{\hspace{2cm}}$

$2 \cdot 9 = \underline{\hspace{2cm}}$

$6 \cdot 9 = \underline{\hspace{2cm}}$

$2 \cdot 1 = \underline{\hspace{2cm}}$

$4 \cdot 8 = \underline{\hspace{2cm}}$

$0 \cdot 3 = \underline{\hspace{2cm}}$

$7 \cdot 9 = \underline{\hspace{2cm}}$

$2 \cdot 3 = \underline{\hspace{2cm}}$

$5 \cdot 6 = \underline{\hspace{2cm}}$

$4 \cdot 1 = \underline{\hspace{2cm}}$

$7 \cdot 2 = \underline{\hspace{2cm}}$

$8 \cdot 4 = \underline{\hspace{2cm}}$

$0 \cdot 8 = \underline{\hspace{2cm}}$

$9 \cdot 6 = \underline{\hspace{2cm}}$

$6 \cdot 5 = \underline{\hspace{2cm}}$

$1 \cdot 4 = \underline{\hspace{2cm}}$

$4 \cdot 0 = \underline{\hspace{2cm}}$

$1 \cdot 1 = \underline{\hspace{2cm}}$

$7 \cdot 5 = \underline{\hspace{2cm}}$

$7 \cdot 0 = \underline{\hspace{2cm}}$

$0 \cdot 8 = \underline{\hspace{2cm}}$

$3 \cdot 0 = \underline{\hspace{2cm}}$

$8 \cdot 2 = \underline{\hspace{2cm}}$

$1 \cdot 6 = \underline{\hspace{2cm}}$

$6 \cdot 3 = \underline{\hspace{2cm}}$

$9 \cdot 0 = \underline{\hspace{2cm}}$

$9 \cdot 5 = \underline{\hspace{2cm}}$

$4 \cdot 9 = \underline{\hspace{2cm}}$

LESSON 8: Fact Masters – Multiplication

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**Multiplication Fact Quiz B**

$8 \cdot 5 = \underline{\quad\quad}$

$6 \cdot 1 = \underline{\quad\quad}$

$0 \cdot 5 = \underline{\quad\quad}$

$0 \cdot 7 = \underline{\quad\quad}$

$5 \cdot 9 = \underline{\quad\quad}$

$4 \cdot 5 = \underline{\quad\quad}$

$8 \cdot 9 = \underline{\quad\quad}$

$1 \cdot 8 = \underline{\quad\quad}$

$9 \cdot 8 = \underline{\quad\quad}$

$4 \cdot 7 = \underline{\quad\quad}$

$4 \cdot 3 = \underline{\quad\quad}$

$5 \cdot 2 = \underline{\quad\quad}$

$5 \cdot 0 = \underline{\quad\quad}$

$8 \cdot 3 = \underline{\quad\quad}$

$8 \cdot 8 = \underline{\quad\quad}$

$3 \cdot 6 = \underline{\quad\quad}$

$6 \cdot 4 = \underline{\quad\quad}$

$4 \cdot 6 = \underline{\quad\quad}$

$8 \cdot 6 = \underline{\quad\quad}$

$0 \cdot 9 = \underline{\quad\quad}$

$1 \cdot 0 = \underline{\quad\quad}$

$2 \cdot 6 = \underline{\quad\quad}$

$9 \cdot 2 = \underline{\quad\quad}$

$5 \cdot 3 = \underline{\quad\quad}$

$3 \cdot 3 = \underline{\quad\quad}$

$1 \cdot 5 = \underline{\quad\quad}$

$0 \cdot 2 = \underline{\quad\quad}$

$6 \cdot 6 = \underline{\quad\quad}$

$1 \cdot 7 = \underline{\quad\quad}$

$3 \cdot 4 = \underline{\quad\quad}$

$3 \cdot 5 = \underline{\quad\quad}$

$1 \cdot 3 = \underline{\quad\quad}$

$7 \cdot 7 = \underline{\quad\quad}$

$2 \cdot 5 = \underline{\quad\quad}$

$8 \cdot 7 = \underline{\quad\quad}$

$3 \cdot 1 = \underline{\quad\quad}$

$0 \cdot 4 = \underline{\quad\quad}$

$5 \cdot 4 = \underline{\quad\quad}$

$6 \cdot 8 = \underline{\quad\quad}$

$1 \cdot 2 = \underline{\quad\quad}$

$4 \cdot 4 = \underline{\quad\quad}$

$7 \cdot 8 = \underline{\quad\quad}$

$9 \cdot 9 = \underline{\quad\quad}$

$2 \cdot 0 = \underline{\quad\quad}$

$3 \cdot 2 = \underline{\quad\quad}$

$7 \cdot 3 = \underline{\quad\quad}$

$9 \cdot 1 = \underline{\quad\quad}$

$3 \cdot 7 = \underline{\quad\quad}$

$5 \cdot 8 = \underline{\quad\quad}$

$0 \cdot 1 = \underline{\quad\quad}$

## LESSON 8: Fact Masters – Multiplication

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Here is the key to T212.

## TRANSPARENCY MASTER

## Multiplication Fact Quiz A

$7 \cdot 6 = 42$

$9 \cdot 4 = 36$

$7 \cdot 4 = 28$

$2 \cdot 8 = 16$

$6 \cdot 0 = 0$

$4 \cdot 2 = 8$

$6 \cdot 7 = 42$

$2 \cdot 4 = 8$

$0 \cdot 6 = 0$

$3 \cdot 8 = 24$

$5 \cdot 1 = 5$

$5 \cdot 5 = 25$

$3 \cdot 9 = 27$

$0 \cdot 0 = 0$

$8 \cdot 1 = 8$

$2 \cdot 2 = 4$

$7 \cdot 1 = 7$

$2 \cdot 7 = 14$

$9 \cdot 3 = 27$

$9 \cdot 1 = 9$

$6 \cdot 2 = 12$

$9 \cdot 7 = 63$

$5 \cdot 7 = 35$

$2 \cdot 9 = 18$

$6 \cdot 9 = 54$

$2 \cdot 1 = 2$

$4 \cdot 8 = 32$

$0 \cdot 3 = 0$

$7 \cdot 9 = 63$

$2 \cdot 3 = 6$

$5 \cdot 6 = 30$

$4 \cdot 1 = 4$

$7 \cdot 2 = 14$

$8 \cdot 4 = 32$

$0 \cdot 8 = 0$

$9 \cdot 6 = 54$

$6 \cdot 5 = 30$

$1 \cdot 4 = 4$

$4 \cdot 0 = 0$

$1 \cdot 1 = 1$

$7 \cdot 5 = 35$

$7 \cdot 0 = 0$

$0 \cdot 8 = 0$

$3 \cdot 0 = 0$

$8 \cdot 2 = 16$

$1 \cdot 6 = 6$

$6 \cdot 3 = 18$

$9 \cdot 0 = 0$

$9 \cdot 5 = 45$

$4 \cdot 9 = 36$

## LESSON 8: Fact Masters – Multiplication

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Here is the key to **T213**.

**TRANSPARENCY MASTER****Multiplication Fact Quiz B**

$8 \cdot 5 = 40$

$6 \cdot 1 = 6$

$0 \cdot 5 = 0$

$0 \cdot 7 = 0$

$5 \cdot 9 = 45$

$4 \cdot 5 = 20$

$8 \cdot 9 = 72$

$1 \cdot 8 = 8$

$9 \cdot 8 = 72$

$4 \cdot 7 = 28$

$4 \cdot 3 = 12$

$5 \cdot 2 = 10$

$5 \cdot 0 = 0$

$8 \cdot 3 = 24$

$8 \cdot 8 = 64$

$3 \cdot 6 = 18$

$6 \cdot 4 = 24$

$4 \cdot 6 = 24$

$8 \cdot 6 = 48$

$0 \cdot 9 = 0$

$1 \cdot 0 = 0$

$2 \cdot 6 = 12$

$9 \cdot 2 = 18$

$5 \cdot 3 = 15$

$3 \cdot 3 = 9$

$1 \cdot 5 = 5$

$0 \cdot 2 = 0$

$6 \cdot 6 = 36$

$1 \cdot 7 = 7$

$3 \cdot 4 = 12$

$3 \cdot 5 = 15$

$1 \cdot 3 = 3$

$7 \cdot 7 = 49$

$2 \cdot 5 = 10$

$8 \cdot 7 = 56$

$3 \cdot 1 = 3$

$0 \cdot 4 = 0$

$5 \cdot 4 = 20$

$6 \cdot 8 = 48$

$1 \cdot 2 = 2$

$4 \cdot 4 = 16$

$7 \cdot 8 = 56$

$9 \cdot 9 = 81$

$2 \cdot 0 = 0$

$3 \cdot 2 = 6$

$7 \cdot 3 = 21$

$9 \cdot 1 = 9$

$3 \cdot 7 = 21$

$5 \cdot 8 = 40$

$0 \cdot 1 = 0$

LESSON 8: Fact Masters – Multiplication

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**Multiplication: Day 1**

1.  $3 \cdot 2 =$  \_\_\_\_\_

2.  $2 \cdot 0 =$  \_\_\_\_\_

3.  $8 \cdot 6 =$  \_\_\_\_\_

4.  $1 \cdot 3 =$  \_\_\_\_\_

5.  $0 \cdot 5 =$  \_\_\_\_\_

6.  $6 \cdot 8 =$  \_\_\_\_\_

7.  $2 \cdot 3 =$  \_\_\_\_\_

8.  $5 \cdot 1 =$  \_\_\_\_\_

9.  $8 \cdot 6 =$  \_\_\_\_\_

10.  $7 \cdot 0 =$  \_\_\_\_\_

11.  $1 \cdot 1 =$  \_\_\_\_\_

12.  $6 \cdot 8 =$  \_\_\_\_\_

13.  $0 \cdot 0 =$  \_\_\_\_\_

14.  $0 \cdot 3 =$  \_\_\_\_\_

15.  $8 \cdot 6 =$  \_\_\_\_\_

16.  $4 \cdot 1 =$  \_\_\_\_\_

17.  $2 \cdot 2 =$  \_\_\_\_\_

18.  $6 \cdot 8 =$  \_\_\_\_\_

19.  $1 \cdot 0 =$  \_\_\_\_\_

20.  $3 \cdot 1 =$  \_\_\_\_\_

21.  $8 \cdot 6 =$  \_\_\_\_\_

22.  $3 \cdot 3 =$  \_\_\_\_\_

23.  $4 \cdot 0 =$  \_\_\_\_\_

24.  $6 \cdot 8 =$  \_\_\_\_\_

25.  $0 \cdot 2 =$  \_\_\_\_\_

26.  $0 \cdot 4 =$  \_\_\_\_\_

27.  $8 \cdot 6 =$  \_\_\_\_\_

28.  $2 \cdot 1 =$  \_\_\_\_\_

29.  $2 \cdot 4 =$  \_\_\_\_\_

30.  $6 \cdot 8 =$  \_\_\_\_\_

31.  $1 \cdot 2 =$  \_\_\_\_\_

32.  $4 \cdot 2 =$  \_\_\_\_\_

33.  $8 \cdot 6 =$  \_\_\_\_\_

34.  $1 \cdot 4 =$  \_\_\_\_\_

35.  $3 \cdot 0 =$  \_\_\_\_\_

36.  $6 \cdot 8 =$  \_\_\_\_\_

37.  $6 \cdot 0 =$  \_\_\_\_\_

38.  $1 \cdot 5 =$  \_\_\_\_\_

39.  $8 \cdot 6 =$  \_\_\_\_\_

40.  $0 \cdot 1 =$  \_\_\_\_\_

41.  $5 \cdot 0 =$  \_\_\_\_\_

42.  $6 \cdot 8 =$  \_\_\_\_\_

43.  $0 \cdot 6 =$  \_\_\_\_\_

44.  $6 \cdot 1 =$  \_\_\_\_\_

45.  $8 \cdot 6 =$  \_\_\_\_\_

---

**Multiplication: Day 2**

1.  $3 \cdot 2 =$  \_\_\_\_\_

2.  $2 \cdot 0 =$  \_\_\_\_\_

3.  $8 \cdot 7 =$  \_\_\_\_\_

4.  $8 \cdot 6 =$  \_\_\_\_\_

5.  $1 \cdot 3 =$  \_\_\_\_\_

6.  $7 \cdot 8 =$  \_\_\_\_\_

7.  $0 \cdot 5 =$  \_\_\_\_\_

8.  $6 \cdot 8 =$  \_\_\_\_\_

9.  $8 \cdot 7 =$  \_\_\_\_\_

10.  $2 \cdot 3 =$  \_\_\_\_\_

11.  $8 \cdot 6 =$  \_\_\_\_\_

12.  $7 \cdot 8 =$  \_\_\_\_\_

13.  $5 \cdot 1 =$  \_\_\_\_\_

14.  $7 \cdot 0 =$  \_\_\_\_\_

15.  $8 \cdot 7 =$  \_\_\_\_\_

16.  $6 \cdot 8 =$  \_\_\_\_\_

17.  $1 \cdot 1 =$  \_\_\_\_\_

18.  $7 \cdot 8 =$  \_\_\_\_\_

19.  $0 \cdot 0 =$  \_\_\_\_\_

20.  $0 \cdot 3 =$  \_\_\_\_\_

21.  $8 \cdot 7 =$  \_\_\_\_\_

22.  $8 \cdot 6 =$  \_\_\_\_\_

23.  $4 \cdot 1 =$  \_\_\_\_\_

24.  $7 \cdot 8 =$  \_\_\_\_\_

25.  $2 \cdot 2 =$  \_\_\_\_\_

26.  $6 \cdot 8 =$  \_\_\_\_\_

27.  $8 \cdot 7 =$  \_\_\_\_\_

28.  $1 \cdot 0 =$  \_\_\_\_\_

29.  $3 \cdot 1 =$  \_\_\_\_\_

30.  $7 \cdot 8 =$  \_\_\_\_\_

31.  $8 \cdot 6 =$  \_\_\_\_\_

32.  $3 \cdot 3 =$  \_\_\_\_\_

33.  $8 \cdot 7 =$  \_\_\_\_\_

34.  $4 \cdot 0 =$  \_\_\_\_\_

35.  $6 \cdot 8 =$  \_\_\_\_\_

36.  $7 \cdot 8 =$  \_\_\_\_\_

37.  $0 \cdot 2 =$  \_\_\_\_\_

38.  $0 \cdot 4 =$  \_\_\_\_\_

39.  $8 \cdot 7 =$  \_\_\_\_\_

40.  $8 \cdot 6 =$  \_\_\_\_\_

41.  $2 \cdot 1 =$  \_\_\_\_\_

42.  $7 \cdot 8 =$  \_\_\_\_\_

43.  $2 \cdot 4 =$  \_\_\_\_\_

44.  $6 \cdot 8 =$  \_\_\_\_\_

45.  $8 \cdot 7 =$  \_\_\_\_\_

LESSON 8: Fact Masters – Multiplication

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**Multiplication: Day 3**

1.  $1 \cdot 2 =$  \_\_\_\_\_

2.  $4 \cdot 2 =$  \_\_\_\_\_

3.  $7 \cdot 7 =$  \_\_\_\_\_

4.  $8 \cdot 7 =$  \_\_\_\_\_

5.  $1 \cdot 4 =$  \_\_\_\_\_

6.  $8 \cdot 8 =$  \_\_\_\_\_

7.  $8 \cdot 6 =$  \_\_\_\_\_

8.  $7 \cdot 8 =$  \_\_\_\_\_

9.  $7 \cdot 7 =$  \_\_\_\_\_

10.  $3 \cdot 0 =$  \_\_\_\_\_

11.  $8 \cdot 7 =$  \_\_\_\_\_

12.  $8 \cdot 8 =$  \_\_\_\_\_

13.  $6 \cdot 0 =$  \_\_\_\_\_

14.  $1 \cdot 5 =$  \_\_\_\_\_

15.  $7 \cdot 7 =$  \_\_\_\_\_

16.  $7 \cdot 8 =$  \_\_\_\_\_

17.  $0 \cdot 1 =$  \_\_\_\_\_

18.  $8 \cdot 8 =$  \_\_\_\_\_

19.  $6 \cdot 8 =$  \_\_\_\_\_

20.  $5 \cdot 0 =$  \_\_\_\_\_

21.  $7 \cdot 7 =$  \_\_\_\_\_

22.  $8 \cdot 7 =$  \_\_\_\_\_

23.  $0 \cdot 6 =$  \_\_\_\_\_

24.  $8 \cdot 8 =$  \_\_\_\_\_

25.  $6 \cdot 1 =$  \_\_\_\_\_

26.  $7 \cdot 8 =$  \_\_\_\_\_

27.  $7 \cdot 7 =$  \_\_\_\_\_

28.  $3 \cdot 2 =$  \_\_\_\_\_

29.  $8 \cdot 6 =$  \_\_\_\_\_

30.  $8 \cdot 8 =$  \_\_\_\_\_

31.  $8 \cdot 7 =$  \_\_\_\_\_

32.  $2 \cdot 0 =$  \_\_\_\_\_

33.  $7 \cdot 7 =$  \_\_\_\_\_

34.  $1 \cdot 3 =$  \_\_\_\_\_

35.  $7 \cdot 8 =$  \_\_\_\_\_

36.  $8 \cdot 8 =$  \_\_\_\_\_

37.  $6 \cdot 8 =$  \_\_\_\_\_

38.  $0 \cdot 5 =$  \_\_\_\_\_

39.  $7 \cdot 7 =$  \_\_\_\_\_

40.  $8 \cdot 7 =$  \_\_\_\_\_

41.  $2 \cdot 3 =$  \_\_\_\_\_

42.  $8 \cdot 8 =$  \_\_\_\_\_

43.  $8 \cdot 6 =$  \_\_\_\_\_

44.  $7 \cdot 8 =$  \_\_\_\_\_

45.  $7 \cdot 7 =$  \_\_\_\_\_

---

**Multiplication: Day 4**

1.  $8 \cdot 6 =$  \_\_\_\_\_

2.  $5 \cdot 1 =$  \_\_\_\_\_

3.  $9 \cdot 7 =$  \_\_\_\_\_

4.  $7 \cdot 7 =$  \_\_\_\_\_

5.  $7 \cdot 0 =$  \_\_\_\_\_

6.  $7 \cdot 9 =$  \_\_\_\_\_

7.  $8 \cdot 7 =$  \_\_\_\_\_

8.  $8 \cdot 8 =$  \_\_\_\_\_

9.  $9 \cdot 7 =$  \_\_\_\_\_

10.  $1 \cdot 1 =$  \_\_\_\_\_

11.  $7 \cdot 7 =$  \_\_\_\_\_

12.  $7 \cdot 9 =$  \_\_\_\_\_

13.  $6 \cdot 8 =$  \_\_\_\_\_

14.  $0 \cdot 0 =$  \_\_\_\_\_

15.  $9 \cdot 7 =$  \_\_\_\_\_

16.  $8 \cdot 8 =$  \_\_\_\_\_

17.  $0 \cdot 3 =$  \_\_\_\_\_

18.  $7 \cdot 9 =$  \_\_\_\_\_

19.  $7 \cdot 8 =$  \_\_\_\_\_

20.  $4 \cdot 1 =$  \_\_\_\_\_

21.  $9 \cdot 7 =$  \_\_\_\_\_

22.  $7 \cdot 7 =$  \_\_\_\_\_

23.  $2 \cdot 2 =$  \_\_\_\_\_

24.  $7 \cdot 9 =$  \_\_\_\_\_

25.  $8 \cdot 6 =$  \_\_\_\_\_

26.  $8 \cdot 8 =$  \_\_\_\_\_

27.  $9 \cdot 7 =$  \_\_\_\_\_

28.  $1 \cdot 0 =$  \_\_\_\_\_

29.  $8 \cdot 7 =$  \_\_\_\_\_

30.  $7 \cdot 9 =$  \_\_\_\_\_

31.  $7 \cdot 7 =$  \_\_\_\_\_

32.  $3 \cdot 1 =$  \_\_\_\_\_

33.  $9 \cdot 7 =$  \_\_\_\_\_

34.  $3 \cdot 3 =$  \_\_\_\_\_

35.  $8 \cdot 8 =$  \_\_\_\_\_

36.  $7 \cdot 9 =$  \_\_\_\_\_

37.  $7 \cdot 8 =$  \_\_\_\_\_

38.  $4 \cdot 0 =$  \_\_\_\_\_

39.  $9 \cdot 7 =$  \_\_\_\_\_

40.  $7 \cdot 7 =$  \_\_\_\_\_

41.  $6 \cdot 8 =$  \_\_\_\_\_

42.  $7 \cdot 9 =$  \_\_\_\_\_

43.  $8 \cdot 7 =$  \_\_\_\_\_

44.  $8 \cdot 8 =$  \_\_\_\_\_

45.  $9 \cdot 7 =$  \_\_\_\_\_



LESSON 8: Fact Masters – Multiplication

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**Multiplication: Day 5**

1.  $8 \cdot 7 =$  \_\_\_\_\_

2.  $0 \cdot 2 =$  \_\_\_\_\_

3.  $6 \cdot 9 =$  \_\_\_\_\_

4.  $9 \cdot 7 =$  \_\_\_\_\_

5.  $8 \cdot 6 =$  \_\_\_\_\_

6.  $9 \cdot 6 =$  \_\_\_\_\_

7.  $7 \cdot 7 =$  \_\_\_\_\_

8.  $7 \cdot 9 =$  \_\_\_\_\_

9.  $6 \cdot 9 =$  \_\_\_\_\_

10.  $0 \cdot 4 =$  \_\_\_\_\_

11.  $9 \cdot 7 =$  \_\_\_\_\_

12.  $9 \cdot 6 =$  \_\_\_\_\_

13.  $7 \cdot 8 =$  \_\_\_\_\_

14.  $2 \cdot 1 =$  \_\_\_\_\_

15.  $6 \cdot 9 =$  \_\_\_\_\_

16.  $7 \cdot 9 =$  \_\_\_\_\_

17.  $2 \cdot 4 =$  \_\_\_\_\_

18.  $9 \cdot 6 =$  \_\_\_\_\_

19.  $8 \cdot 8 =$  \_\_\_\_\_

20.  $6 \cdot 8 =$  \_\_\_\_\_

21.  $6 \cdot 9 =$  \_\_\_\_\_

22.  $9 \cdot 7 =$  \_\_\_\_\_

23.  $1 \cdot 2 =$  \_\_\_\_\_

24.  $9 \cdot 6 =$  \_\_\_\_\_

25.  $7 \cdot 8 =$  \_\_\_\_\_

26.  $7 \cdot 9 =$  \_\_\_\_\_

27.  $6 \cdot 9 =$  \_\_\_\_\_

28.  $4 \cdot 2 =$  \_\_\_\_\_

29.  $7 \cdot 7 =$  \_\_\_\_\_

30.  $9 \cdot 6 =$  \_\_\_\_\_

31.  $9 \cdot 7 =$  \_\_\_\_\_

32.  $1 \cdot 4 =$  \_\_\_\_\_

33.  $6 \cdot 9 =$  \_\_\_\_\_

34.  $3 \cdot 0 =$  \_\_\_\_\_

35.  $7 \cdot 9 =$  \_\_\_\_\_

36.  $9 \cdot 6 =$  \_\_\_\_\_

37.  $8 \cdot 8 =$  \_\_\_\_\_

38.  $8 \cdot 6 =$  \_\_\_\_\_

39.  $6 \cdot 9 =$  \_\_\_\_\_

40.  $9 \cdot 7 =$  \_\_\_\_\_

40.  $8 \cdot 7 =$  \_\_\_\_\_

42.  $9 \cdot 6 =$  \_\_\_\_\_

43.  $7 \cdot 7 =$  \_\_\_\_\_

44.  $7 \cdot 9 =$  \_\_\_\_\_

45.  $6 \cdot 9 =$  \_\_\_\_\_

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**Multiplication: Day 6**

1.  $7 \cdot 7 =$  \_\_\_\_\_

2.  $6 \cdot 0 =$  \_\_\_\_\_

3.  $4 \cdot 8 =$  \_\_\_\_\_

4.  $6 \cdot 9 =$  \_\_\_\_\_

5.  $8 \cdot 7 =$  \_\_\_\_\_

6.  $8 \cdot 4 =$  \_\_\_\_\_

7.  $9 \cdot 7 =$  \_\_\_\_\_

8.  $9 \cdot 6 =$  \_\_\_\_\_

9.  $4 \cdot 8 =$  \_\_\_\_\_

10.  $8 \cdot 6 =$  \_\_\_\_\_

11.  $6 \cdot 9 =$  \_\_\_\_\_

12.  $8 \cdot 4 =$  \_\_\_\_\_

13.  $8 \cdot 8 =$  \_\_\_\_\_

14.  $1 \cdot 5 =$  \_\_\_\_\_

15.  $4 \cdot 8 =$  \_\_\_\_\_

16.  $9 \cdot 6 =$  \_\_\_\_\_

17.  $0 \cdot 1 =$  \_\_\_\_\_

18.  $8 \cdot 4 =$  \_\_\_\_\_

19.  $7 \cdot 9 =$  \_\_\_\_\_

20.  $7 \cdot 8 =$  \_\_\_\_\_

21.  $4 \cdot 8 =$  \_\_\_\_\_

22.  $6 \cdot 9 =$  \_\_\_\_\_

23.  $5 \cdot 0 =$  \_\_\_\_\_

24.  $8 \cdot 4 =$  \_\_\_\_\_

25.  $7 \cdot 7 =$  \_\_\_\_\_

26.  $9 \cdot 6 =$  \_\_\_\_\_

27.  $4 \cdot 8 =$  \_\_\_\_\_

28.  $0 \cdot 6 =$  \_\_\_\_\_

29.  $9 \cdot 7 =$  \_\_\_\_\_

30.  $8 \cdot 4 =$  \_\_\_\_\_

31.  $6 \cdot 9 =$  \_\_\_\_\_

32.  $6 \cdot 1 =$  \_\_\_\_\_

33.  $4 \cdot 8 =$  \_\_\_\_\_

34.  $6 \cdot 8 =$  \_\_\_\_\_

35.  $9 \cdot 6 =$  \_\_\_\_\_

36.  $8 \cdot 4 =$  \_\_\_\_\_

37.  $7 \cdot 9 =$  \_\_\_\_\_

38.  $8 \cdot 7 =$  \_\_\_\_\_

39.  $4 \cdot 8 =$  \_\_\_\_\_

40.  $6 \cdot 9 =$  \_\_\_\_\_

41.  $8 \cdot 8 =$  \_\_\_\_\_

42.  $8 \cdot 4 =$  \_\_\_\_\_

43.  $9 \cdot 7 =$  \_\_\_\_\_

44.  $9 \cdot 6 =$  \_\_\_\_\_

45.  $4 \cdot 8 =$  \_\_\_\_\_

LESSON 8: Fact Masters – Multiplication

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**Multiplication: Day 7**

- |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|
| 1. $9 \cdot 7 =$ _____  | 16. $8 \cdot 4 =$ _____ | 31. $4 \cdot 8 =$ _____ |
| 2. $8 \cdot 6 =$ _____  | 17. $2 \cdot 0 =$ _____ | 32. $6 \cdot 8 =$ _____ |
| 3. $9 \cdot 8 =$ _____  | 18. $8 \cdot 9 =$ _____ | 33. $9 \cdot 8 =$ _____ |
| 4. $4 \cdot 8 =$ _____  | 19. $9 \cdot 6 =$ _____ | 34. $7 \cdot 8 =$ _____ |
| 5. $7 \cdot 7 =$ _____  | 20. $8 \cdot 8 =$ _____ | 35. $8 \cdot 4 =$ _____ |
| 6. $8 \cdot 9 =$ _____  | 21. $9 \cdot 8 =$ _____ | 36. $8 \cdot 9 =$ _____ |
| 7. $6 \cdot 9 =$ _____  | 22. $4 \cdot 8 =$ _____ | 37. $9 \cdot 6 =$ _____ |
| 8. $8 \cdot 4 =$ _____  | 23. $1 \cdot 3 =$ _____ | 38. $7 \cdot 7 =$ _____ |
| 9. $9 \cdot 8 =$ _____  | 24. $8 \cdot 9 =$ _____ | 39. $9 \cdot 8 =$ _____ |
| 10. $8 \cdot 7 =$ _____ | 25. $9 \cdot 7 =$ _____ | 40. $4 \cdot 8 =$ _____ |
| 11. $4 \cdot 8 =$ _____ | 26. $8 \cdot 4 =$ _____ | 41. $7 \cdot 9 =$ _____ |
| 12. $8 \cdot 9 =$ _____ | 27. $9 \cdot 8 =$ _____ | 42. $8 \cdot 9 =$ _____ |
| 13. $7 \cdot 9 =$ _____ | 28. $0 \cdot 5 =$ _____ | 43. $6 \cdot 9 =$ _____ |
| 14. $3 \cdot 2 =$ _____ | 29. $6 \cdot 9 =$ _____ | 44. $8 \cdot 4 =$ _____ |
| 15. $9 \cdot 8 =$ _____ | 30. $8 \cdot 9 =$ _____ | 45. $9 \cdot 8 =$ _____ |
- 

**Multiplication: Day 8**

- |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|
| 1. $6 \cdot 9 =$ _____  | 16. $8 \cdot 9 =$ _____ | 31. $9 \cdot 8 =$ _____ |
| 2. $8 \cdot 7 =$ _____  | 17. $2 \cdot 3 =$ _____ | 32. $7 \cdot 8 =$ _____ |
| 3. $7 \cdot 4 =$ _____  | 18. $4 \cdot 7 =$ _____ | 33. $7 \cdot 4 =$ _____ |
| 4. $9 \cdot 8 =$ _____  | 19. $8 \cdot 4 =$ _____ | 34. $8 \cdot 8 =$ _____ |
| 5. $9 \cdot 7 =$ _____  | 20. $7 \cdot 9 =$ _____ | 35. $8 \cdot 9 =$ _____ |
| 6. $4 \cdot 7 =$ _____  | 21. $7 \cdot 4 =$ _____ | 36. $4 \cdot 7 =$ _____ |
| 7. $4 \cdot 8 =$ _____  | 22. $9 \cdot 8 =$ _____ | 37. $8 \cdot 4 =$ _____ |
| 8. $8 \cdot 9 =$ _____  | 23. $5 \cdot 1 =$ _____ | 38. $9 \cdot 7 =$ _____ |
| 9. $7 \cdot 4 =$ _____  | 24. $4 \cdot 7 =$ _____ | 39. $7 \cdot 4 =$ _____ |
| 10. $7 \cdot 7 =$ _____ | 25. $6 \cdot 9 =$ _____ | 40. $9 \cdot 8 =$ _____ |
| 11. $9 \cdot 8 =$ _____ | 26. $8 \cdot 9 =$ _____ | 41. $9 \cdot 6 =$ _____ |
| 12. $4 \cdot 7 =$ _____ | 27. $7 \cdot 4 =$ _____ | 42. $4 \cdot 7 =$ _____ |
| 13. $9 \cdot 6 =$ _____ | 28. $6 \cdot 8 =$ _____ | 43. $4 \cdot 8 =$ _____ |
| 14. $8 \cdot 6 =$ _____ | 29. $4 \cdot 8 =$ _____ | 44. $8 \cdot 9 =$ _____ |
| 15. $7 \cdot 4 =$ _____ | 30. $4 \cdot 7 =$ _____ | 45. $7 \cdot 4 =$ _____ |

LESSON 8: Fact Masters – Multiplication

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**Multiplication: Day 9**

1.  $4 \cdot 8 =$  \_\_\_\_\_

2.  $7 \cdot 7 =$  \_\_\_\_\_

3.  $6 \cdot 7 =$  \_\_\_\_\_

4.  $7 \cdot 4 =$  \_\_\_\_\_

5.  $6 \cdot 9 =$  \_\_\_\_\_

6.  $7 \cdot 6 =$  \_\_\_\_\_

7.  $9 \cdot 8 =$  \_\_\_\_\_

8.  $4 \cdot 7 =$  \_\_\_\_\_

9.  $6 \cdot 7 =$  \_\_\_\_\_

10.  $9 \cdot 7 =$  \_\_\_\_\_

11.  $7 \cdot 4 =$  \_\_\_\_\_

12.  $7 \cdot 6 =$  \_\_\_\_\_

13.  $8 \cdot 4 =$  \_\_\_\_\_

14.  $8 \cdot 7 =$  \_\_\_\_\_

15.  $6 \cdot 7 =$  \_\_\_\_\_

16.  $4 \cdot 7 =$  \_\_\_\_\_

17.  $8 \cdot 6 =$  \_\_\_\_\_

18.  $7 \cdot 6 =$  \_\_\_\_\_

19.  $8 \cdot 9 =$  \_\_\_\_\_

20.  $9 \cdot 6 =$  \_\_\_\_\_

21.  $6 \cdot 7 =$  \_\_\_\_\_

22.  $7 \cdot 4 =$  \_\_\_\_\_

23.  $6 \cdot 8 =$  \_\_\_\_\_

24.  $7 \cdot 6 =$  \_\_\_\_\_

25.  $4 \cdot 8 =$  \_\_\_\_\_

26.  $4 \cdot 7 =$  \_\_\_\_\_

27.  $6 \cdot 7 =$  \_\_\_\_\_

28.  $7 \cdot 8 =$  \_\_\_\_\_

29.  $9 \cdot 8 =$  \_\_\_\_\_

30.  $7 \cdot 6 =$  \_\_\_\_\_

31.  $7 \cdot 4 =$  \_\_\_\_\_

32.  $8 \cdot 8 =$  \_\_\_\_\_

33.  $6 \cdot 7 =$  \_\_\_\_\_

34.  $7 \cdot 9 =$  \_\_\_\_\_

35.  $4 \cdot 7 =$  \_\_\_\_\_

36.  $7 \cdot 6 =$  \_\_\_\_\_

37.  $8 \cdot 9 =$  \_\_\_\_\_

38.  $6 \cdot 9 =$  \_\_\_\_\_

39.  $6 \cdot 7 =$  \_\_\_\_\_

40.  $7 \cdot 4 =$  \_\_\_\_\_

41.  $8 \cdot 4 =$  \_\_\_\_\_

42.  $7 \cdot 6 =$  \_\_\_\_\_

43.  $9 \cdot 8 =$  \_\_\_\_\_

44.  $4 \cdot 7 =$  \_\_\_\_\_

45.  $6 \cdot 7 =$  \_\_\_\_\_

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**Multiplication: Day 10**

1.  $9 \cdot 8 =$  \_\_\_\_\_

2.  $9 \cdot 7 =$  \_\_\_\_\_

3.  $9 \cdot 4 =$  \_\_\_\_\_

4.  $6 \cdot 7 =$  \_\_\_\_\_

5.  $4 \cdot 8 =$  \_\_\_\_\_

6.  $4 \cdot 9 =$  \_\_\_\_\_

7.  $7 \cdot 4 =$  \_\_\_\_\_

8.  $7 \cdot 6 =$  \_\_\_\_\_

9.  $9 \cdot 4 =$  \_\_\_\_\_

10.  $6 \cdot 9 =$  \_\_\_\_\_

11.  $6 \cdot 7 =$  \_\_\_\_\_

12.  $4 \cdot 9 =$  \_\_\_\_\_

13.  $8 \cdot 9 =$  \_\_\_\_\_

14.  $7 \cdot 7 =$  \_\_\_\_\_

15.  $9 \cdot 4 =$  \_\_\_\_\_

16.  $7 \cdot 6 =$  \_\_\_\_\_

17.  $8 \cdot 7 =$  \_\_\_\_\_

18.  $4 \cdot 9 =$  \_\_\_\_\_

19.  $4 \cdot 7 =$  \_\_\_\_\_

20.  $8 \cdot 4 =$  \_\_\_\_\_

21.  $9 \cdot 4 =$  \_\_\_\_\_

22.  $6 \cdot 7 =$  \_\_\_\_\_

23.  $8 \cdot 6 =$  \_\_\_\_\_

24.  $4 \cdot 9 =$  \_\_\_\_\_

25.  $9 \cdot 8 =$  \_\_\_\_\_

26.  $7 \cdot 6 =$  \_\_\_\_\_

27.  $9 \cdot 4 =$  \_\_\_\_\_

28.  $8 \cdot 8 =$  \_\_\_\_\_

29.  $7 \cdot 4 =$  \_\_\_\_\_

30.  $4 \cdot 9 =$  \_\_\_\_\_

31.  $0 \cdot 7 =$  \_\_\_\_\_

32.  $7 \cdot 9 =$  \_\_\_\_\_

33.  $9 \cdot 4 =$  \_\_\_\_\_

34.  $9 \cdot 6 =$  \_\_\_\_\_

35.  $7 \cdot 6 =$  \_\_\_\_\_

36.  $4 \cdot 9 =$  \_\_\_\_\_

37.  $4 \cdot 7 =$  \_\_\_\_\_

38.  $4 \cdot 8 =$  \_\_\_\_\_

39.  $9 \cdot 4 =$  \_\_\_\_\_

40.  $6 \cdot 7 =$  \_\_\_\_\_

41.  $8 \cdot 9 =$  \_\_\_\_\_

42.  $4 \cdot 9 =$  \_\_\_\_\_

43.  $7 \cdot 4 =$  \_\_\_\_\_

44.  $7 \cdot 6 =$  \_\_\_\_\_

45.  $9 \cdot 4 =$  \_\_\_\_\_

LESSON 8: Fact Masters – Multiplication

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**Multiplication: Day 11**

- |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|
| 1. $7 \cdot 4 =$ _____  | 16. $4 \cdot 9 =$ _____ | 31. $9 \cdot 4 =$ _____ |
| 2. $6 \cdot 9 =$ _____  | 17. $8 \cdot 6 =$ _____ | 32. $9 \cdot 6 =$ _____ |
| 3. $3 \cdot 9 =$ _____  | 18. $9 \cdot 3 =$ _____ | 33. $3 \cdot 9 =$ _____ |
| 4. $9 \cdot 4 =$ _____  | 19. $7 \cdot 6 =$ _____ | 34. $8 \cdot 4 =$ _____ |
| 5. $9 \cdot 8 =$ _____  | 20. $8 \cdot 9 =$ _____ | 35. $4 \cdot 9 =$ _____ |
| 6. $9 \cdot 3 =$ _____  | 21. $3 \cdot 9 =$ _____ | 36. $9 \cdot 3 =$ _____ |
| 7. $6 \cdot 7 =$ _____  | 22. $9 \cdot 4 =$ _____ | 37. $7 \cdot 6 =$ _____ |
| 8. $4 \cdot 9 =$ _____  | 23. $8 \cdot 7 =$ _____ | 38. $9 \cdot 8 =$ _____ |
| 9. $3 \cdot 9 =$ _____  | 24. $9 \cdot 3 =$ _____ | 39. $3 \cdot 9 =$ _____ |
| 10. $4 \cdot 8 =$ _____ | 25. $7 \cdot 4 =$ _____ | 40. $9 \cdot 4 =$ _____ |
| 11. $9 \cdot 4 =$ _____ | 26. $4 \cdot 9 =$ _____ | 41. $4 \cdot 7 =$ _____ |
| 12. $9 \cdot 3 =$ _____ | 27. $3 \cdot 9 =$ _____ | 42. $9 \cdot 3 =$ _____ |
| 13. $4 \cdot 7 =$ _____ | 28. $7 \cdot 7 =$ _____ | 43. $6 \cdot 7 =$ _____ |
| 14. $9 \cdot 7 =$ _____ | 29. $6 \cdot 7 =$ _____ | 44. $4 \cdot 9 =$ _____ |
| 15. $3 \cdot 9 =$ _____ | 30. $9 \cdot 3 =$ _____ | 45. $3 \cdot 9 =$ _____ |
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**Multiplication: Day 12**

- |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|
| 1. $6 \cdot 7 =$ _____  | 16. $9 \cdot 3 =$ _____ | 31. $3 \cdot 9 =$ _____ |
| 2. $4 \cdot 8 =$ _____  | 17. $8 \cdot 6 =$ _____ | 32. $6 \cdot 9 =$ _____ |
| 3. $4 \cdot 6 =$ _____  | 18. $6 \cdot 4 =$ _____ | 33. $4 \cdot 6 =$ _____ |
| 4. $3 \cdot 9 =$ _____  | 19. $4 \cdot 9 =$ _____ | 34. $9 \cdot 8 =$ _____ |
| 5. $7 \cdot 4 =$ _____  | 20. $4 \cdot 7 =$ _____ | 35. $9 \cdot 3 =$ _____ |
| 6. $6 \cdot 4 =$ _____  | 21. $4 \cdot 6 =$ _____ | 36. $6 \cdot 4 =$ _____ |
| 7. $9 \cdot 4 =$ _____  | 22. $3 \cdot 9 =$ _____ | 37. $4 \cdot 9 =$ _____ |
| 8. $9 \cdot 3 =$ _____  | 23. $8 \cdot 9 =$ _____ | 38. $7 \cdot 4 =$ _____ |
| 9. $4 \cdot 6 =$ _____  | 24. $6 \cdot 4 =$ _____ | 39. $4 \cdot 6 =$ _____ |
| 10. $9 \cdot 8 =$ _____ | 25. $6 \cdot 7 =$ _____ | 40. $3 \cdot 9 =$ _____ |
| 11. $3 \cdot 9 =$ _____ | 26. $9 \cdot 3 =$ _____ | 41. $7 \cdot 6 =$ _____ |
| 12. $6 \cdot 4 =$ _____ | 27. $4 \cdot 6 =$ _____ | 42. $6 \cdot 4 =$ _____ |
| 13. $7 \cdot 6 =$ _____ | 28. $7 \cdot 7 =$ _____ | 43. $9 \cdot 4 =$ _____ |
| 14. $9 \cdot 7 =$ _____ | 29. $9 \cdot 4 =$ _____ | 44. $9 \cdot 3 =$ _____ |
| 15. $4 \cdot 6 =$ _____ | 30. $6 \cdot 4 =$ _____ | 45. $4 \cdot 6 =$ _____ |

LESSON 8: Fact Masters – Multiplication

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**Multiplication: Day 13**

1.  $9 \cdot 4 =$  \_\_\_\_\_

2.  $4 \cdot 8 =$  \_\_\_\_\_

3.  $6 \cdot 6 =$  \_\_\_\_\_

4.  $4 \cdot 6 =$  \_\_\_\_\_

5.  $6 \cdot 7 =$  \_\_\_\_\_

6.  $8 \cdot 3 =$  \_\_\_\_\_

7.  $3 \cdot 9 =$  \_\_\_\_\_

8.  $6 \cdot 4 =$  \_\_\_\_\_

9.  $6 \cdot 6 =$  \_\_\_\_\_

10.  $7 \cdot 4 =$  \_\_\_\_\_

11.  $4 \cdot 6 =$  \_\_\_\_\_

12.  $8 \cdot 3 =$  \_\_\_\_\_

13.  $4 \cdot 9 =$  \_\_\_\_\_

14.  $9 \cdot 7 =$  \_\_\_\_\_

15.  $6 \cdot 6 =$  \_\_\_\_\_

16.  $6 \cdot 4 =$  \_\_\_\_\_

17.  $8 \cdot 6 =$  \_\_\_\_\_

18.  $8 \cdot 3 =$  \_\_\_\_\_

19.  $9 \cdot 3 =$  \_\_\_\_\_

20.  $7 \cdot 6 =$  \_\_\_\_\_

21.  $6 \cdot 6 =$  \_\_\_\_\_

22.  $4 \cdot 6 =$  \_\_\_\_\_

23.  $8 \cdot 7 =$  \_\_\_\_\_

24.  $8 \cdot 3 =$  \_\_\_\_\_

25.  $9 \cdot 4 =$  \_\_\_\_\_

26.  $6 \cdot 4 =$  \_\_\_\_\_

27.  $6 \cdot 6 =$  \_\_\_\_\_

28.  $7 \cdot 7 =$  \_\_\_\_\_

29.  $3 \cdot 9 =$  \_\_\_\_\_

30.  $8 \cdot 3 =$  \_\_\_\_\_

31.  $4 \cdot 6 =$  \_\_\_\_\_

32.  $6 \cdot 9 =$  \_\_\_\_\_

33.  $6 \cdot 6 =$  \_\_\_\_\_

34.  $9 \cdot 8 =$  \_\_\_\_\_

35.  $6 \cdot 4 =$  \_\_\_\_\_

36.  $8 \cdot 3 =$  \_\_\_\_\_

37.  $9 \cdot 3 =$  \_\_\_\_\_

38.  $6 \cdot 7 =$  \_\_\_\_\_

39.  $6 \cdot 6 =$  \_\_\_\_\_

40.  $4 \cdot 6 =$  \_\_\_\_\_

41.  $4 \cdot 9 =$  \_\_\_\_\_

42.  $8 \cdot 3 =$  \_\_\_\_\_

43.  $3 \cdot 9 =$  \_\_\_\_\_

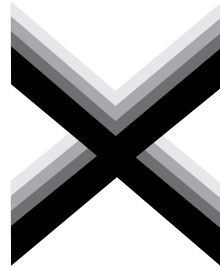
44.  $6 \cdot 4 =$  \_\_\_\_\_

45.  $6 \cdot 6 =$  \_\_\_\_\_

LESSON 8: Fact Masters – Multiplication

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*Fact Masters Club*



*qualifies for the club with over 90% mastery.*