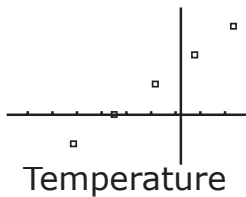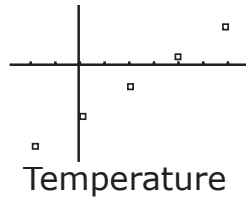**LESSON 21: Creating Scatter Plots**

Homework

1. The table to the right displays how 10 mph winds affect the temperature. Which graph represents the table to the right?

Temperature	Wind Chill
30°	16°
20°	3°
10°	⁻9°
0°	⁻22°
⁻10°	⁻34°

A.

Temperature

B.

Temperature

C.

Temperature

D.

Temperature

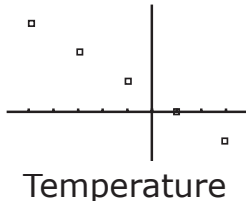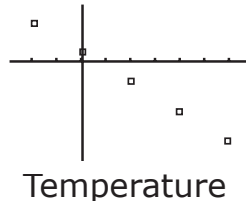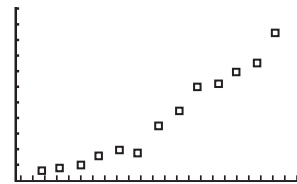**2.** Estimate the correlation coefficient for the graph on the right.

A. $n = {}^-1$
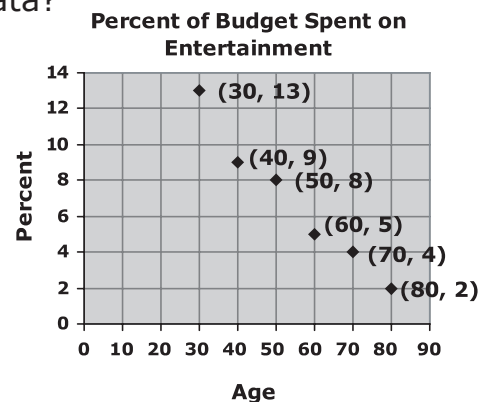
B. $n = {}^-0.35$

C. $n = 0.97$

D. $n = 1$

3. The graph shows the percent of budget spent on entertainment by age. Which equation below best models the data?

A. $y = {}^-0.21x + 18.30$

B. $y = {}^-4.63x + 86.64$

C. $y = 4.63x + 23.36$

D. $y = 0.21x - 4.64$

Percent of Budget Spent on Entertainment

(30, 13)
(40, 9)
(50, 8)
(60, 5)
(70, 4)
(80, 2)

Percent

Age

Homework

A hospital wanted to see if there was a correlation between the length of a baby's foot and the length of the baby (height). The table below shows the data they collected.

Foot length (in inches)	2	3.25	2.5	1.5	2	3	2.75
Height (in inches)	18	21.5	21	16	17.5	20	20

4. Make a scatter plot of the data below.

5. Does there appear to be a linear relationship between the foot length and the height of the babies? If so, describe the relationship. (positive/ negative, weak/moderate/strong)

6. Estimate the correlation coefficient (r) for the relationship.

7. Draw a line of best fit on the scatter plot.

8. List two points on the line of best fit.

9. Find the equation of the line of best fit using the two points.

10. Use your equation for the line of best fit to predict the height of a baby with a foot length of 3.5 inches.