

Tell whether each scale reduces, enlarges, or preserves the size of the actual object.

21) 1 yd: 1 ft

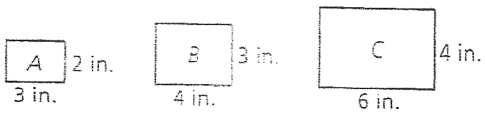
22) 100 cm.: 1 m

23) .25 in: 1 ft.

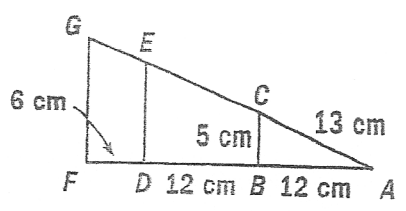
24) What scale factor relates a 20 in scale model to an 80 ft. Apatosaurus?

25) A picture 4 in tall and 9 in wide is to be scaled to 2.5 in tall to be displayed on a web page. How wide should the picture be on the web page for the two pictures to be similar?

26) Which rectangles are similar?



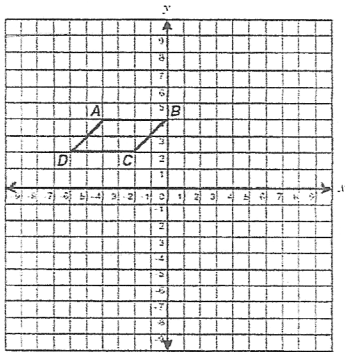
27) In the figure, Triangle ABC, Triangle ADE, and Triangle AFG are all similar. Find DE and FG.



Which set of coordinates identifies the vertices

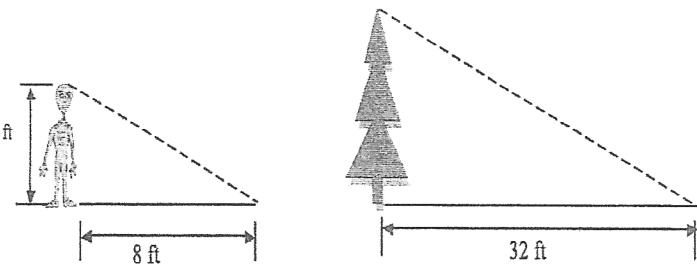
28) of a parallelogram that is similar to $ABCD$?

- A. $(0, 2), (2, 2), (1, 1), (-1, 1)$
- B. $(-2, 2), (0, 2), (1, 0), (-1, 0)$
- C. $(-8, 8), (-3, 8), (-5, 4), (-10, 4)$
- D. $(-3, 1), (1, 1), (-1, 5), (-5, 5)$



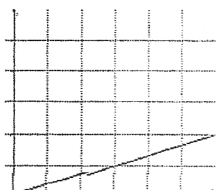
29) Lance, the alien, is 5 feet tall. His shadow is 8 feet long. At the same time of day, a tree's shadow is 32 feet long. What is the height of the tree?

- A) 20 feet
- B) 24 feet
- C) 29 feet
- D) 51 feet

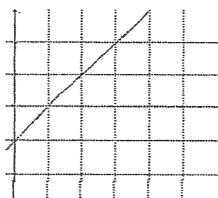


30) Proportional or not? Why?

A



B

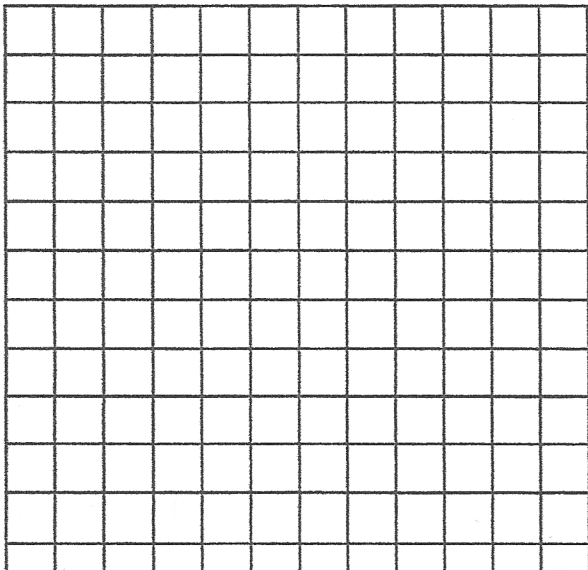


Use the table below:

Drinking Gatorade

Time in seconds (x)	Amount in Ounces (y)
0	38
1	36
2	34
3	32
4	30

- 31) What is the unit rate?
- 32) What is the slope?
- 33) Graph the information which is given in the table and tell if there is a direct variation between the time and the amount of ounces.



34) Tell which equations below show a proportional relationship. Show how you know.

a) $y = \frac{3}{4}x$

b) $y = 5x - 3$

c) $\frac{y}{3} = x$

d) $y = -2x$

e) $y = \frac{6}{x}$

35) Which is the better buy? Feel free to look up measurements if you would like.

Item	Size	\$ Price
Breyer's Chocolate Crackle Vanilla with Crispy Chocolate Layers Ice Cream	1.5 quart	\$5.49
Dove Vanilla Milk Chocolate Ice Cream Bars (3 count)	8.67 ounces	\$3.99
Ben and Jerry's Chocolate Fudge Brownie Ice Cream	1 pint	\$4.79

- 36) Lauren bikes $1\frac{1}{3}$ miles in $\frac{1}{10}$ hour.
What is her rate of speed in miles per hour?

37)

Jon's summer baseball league has 36 thirteen-year-olds and 48 fourteen-year-olds. Write the ratio of thirteen-year-olds to fourteen-year-olds in all three forms.

- a. $\frac{3}{4}$, 3 to 4, 3:4
b. $\frac{4}{7}$, 4 to 7, 4:7
c. $\frac{4}{3}$, 4 to 3, 4:3
d. $\frac{3}{7}$, 3 to 7, 3:7

38)

$$\frac{7}{b+5} = \frac{10}{5}$$

39) $\left(\frac{7}{3} \div -\frac{1}{6}\right) \div -\frac{7}{8}$

40) $1\frac{5}{8} - 2\frac{7}{12}$