

Today is 11/9/17
Get out Note Packet & Calculator
Goal: Review for test

Agenda:
Go Over HW
Brain Teaser
p. 29 & 30 Review Sheet

HW: finish p. 29
& 30

Test Tuesday
11/14 and
Wednesday 11/15

Work on Review Sheet # 3: p. 29 & 30

When you finish: You MUST grab a Pizazz puzzle to work on!!

Use cross products to determine whether each pair of ratios form a proportion.

Write yes or no.

1. $\frac{2}{3}, \frac{33}{22}$

$$44 \neq 99$$
$$\text{no}$$

2. $\frac{4.2}{-5.6} = \frac{1.68}{2.24}$

$$9.408 \neq -9.408$$
$$\text{no}$$

3. $\frac{5}{2}, \frac{4}{1.6}$

$$8 = 8$$
$$\text{yes}$$

Solve each proportion. If necessary, round to the nearest thousandth.

4. $\frac{4}{x} = \frac{2}{10}$

$$\frac{40}{2} = \frac{2x}{2}$$

$$20 = x$$

5. $\frac{6}{14} = \frac{7}{x-3}$

$$\begin{array}{r} 6(x-3) = 42 \\ 6x - 18 = 42 \\ +18 \quad +18 \\ \hline 6x = 60 \\ \frac{6x}{6} = \frac{60}{6} \\ x = 10 \end{array}$$

6. $\frac{5}{3} = \frac{6}{x+2}$

$$\begin{array}{r} 5(x+2) = 18 \\ 5x + 10 = 18 \\ -10 \quad -10 \\ \hline 5x = 8 \\ \frac{5x}{5} = \frac{8}{5} \\ x = 8/5 \end{array}$$

Plot each point on a coordinate plane.

7. $A(3,4)$

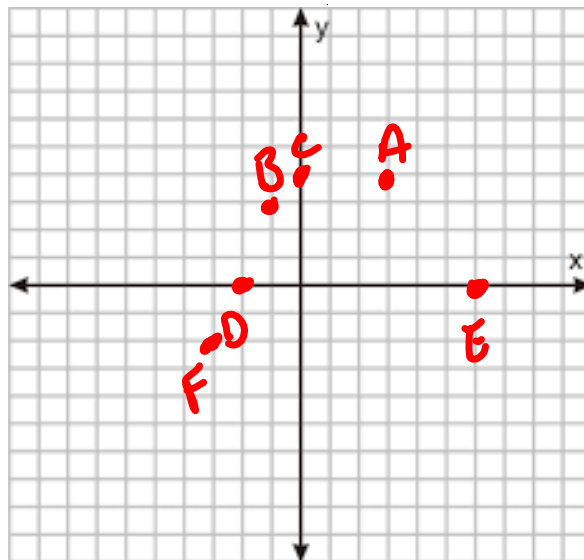
8. $B(-1,3)$

9. $C(0,4)$

10. $D(-2,0)$

11. $E(6,0)$

12. $F(-3,-2)$



Find the slope and the percent grade. If necessary, round the percent to the nearest integer.

13. $(1,1), (3,4)$

$$\frac{4-1}{3-1} = \frac{3}{2}$$

$$150\%$$

14. $(0,0), (5,4)$

$$\frac{4-0}{5-0} = \frac{4}{5}$$

$$80\%$$

15. $(-2,2), (-1,-2)$

$$\frac{-2-2}{-1--2} = \frac{-4}{1}$$

$$400\%$$

16. The slope of a stairway determines how easy it is to climb the stairs. Assume that a stairway has 11 steps. The rise of each stair is 7 inches and the tread is 10 inches.

a. What is the slope of the stairway?

$$\frac{7}{10}$$

b. What is the total length and height of the stairway?

$$\begin{array}{l} h \quad 77 \\ L \quad 110 \end{array}$$

c. What is the slope of the entire stairway?

$$\frac{77}{110}$$

d. What is the percent grade of the stairway?
(Round to the nearest integer.)

$$70\%$$

17. The wheelchair ramp into a local high school covers a horizontal distance of 26 feet and a vertical distance of 3 feet.

a. What is the slope of the ramp?

$$\frac{3}{26}$$

- b. Any ramp built must have a percent grade of 10% or less. Is this ramp built within the legal standards?

11.5%

NO