Algebra 1A Q2 HW3

NAME _____ DATE _____ PERIOD ____

3-6 Practice

Ratios and Proportions

Use cross products to determine whether each pair of ratios forms a proportion. Write *yes* or *no*.

1. $\frac{7}{6}, \frac{52}{48}$
2. $\frac{3}{11}, \frac{15}{66}$
3. $\frac{18}{24}, \frac{36}{48}$
4. $\frac{12}{11}, \frac{108}{99}$
5. $\frac{8}{9}, \frac{72}{81}$
6. $\frac{1.5}{9}, \frac{1}{6}$
7. $\frac{3.4}{5.2}, \frac{7.14}{10.92}$
8. $\frac{1.7}{1.2}, \frac{2.9}{2.4}$
9. $\frac{7.6}{1.8}, \frac{3.9}{0.9}$

SHOW your cross-products

Ex. $\frac{3}{4} = \frac{12}{16}$ $3 \cdot 16 = 4 \cdot 12$ $48 = 48$ yes

LOOK SHOW WORK! ALL WORK ON LOOSELEAF! LOOK

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

10. $\frac{5}{a} = \frac{30}{54}$
11. $\frac{v}{46} = \frac{34}{23}$
12. $\frac{40}{56} = \frac{k}{7}$
13. $\frac{28}{49} = \frac{4}{w}$
14. $\frac{3}{u} = \frac{27}{162}$
15. $\frac{y}{3} = \frac{48}{9}$
16. $\frac{2}{y} = \frac{10}{60}$
17. $\frac{5}{11} = \frac{35}{x}$
18. $\frac{3}{51} = \frac{z}{17}$
19. $\frac{6}{61} = \frac{12}{h}$
20. $\frac{g}{16} = \frac{6}{4}$
21. $\frac{14}{49} = \frac{2}{a}$
22. $\frac{7}{9} = \frac{8}{c}$
23. $\frac{3}{q} = \frac{5}{6}$
24. $\frac{m}{6} = \frac{5}{8}$
25. $\frac{v}{0.23} = \frac{7}{1.61}$
26. $\frac{3}{0.72} = \frac{12}{b}$
27. $\frac{6}{n} = \frac{3}{0.51}$
28. $\frac{7}{a-4} = \frac{14}{6}$
29. $\frac{3}{12} = \frac{2}{y+6}$
30. $\frac{m-1}{8} = \frac{2}{4}$
31. $\frac{5}{12} = \frac{x+1}{4}$
32. $\frac{r+2}{7} = \frac{5}{7}$
33. $\frac{3}{7} = \frac{x-2}{6}$

use cross-products!

Ex. $\frac{x}{5} = \frac{6}{15}$ $\frac{15x}{15} = \frac{30}{15}$ $x = 2$ CK $\frac{(2)}{5} \stackrel{?}{=} \frac{6}{15}$ ✓

34. **PAINTING** Ysidra paints a room that has 400 square feet of wall space in $2\frac{1}{2}$ hours. At this rate, how long will it take her to paint a room that has 720 square feet of wall space?

35. **VACATION PLANS** Walker is planning a summer vacation. He wants to visit Petrified National Forest and Meteor Crater, Arizona, the 50,000-year-old impact site of a large meteor. On a map with a scale where 2 inches equals 75 miles, the two areas are about $1\frac{1}{2}$ inches apart. What is the distance between Petrified National Forest and Meteor Crater?