

Name: _____ Date: _____ Period: _____

Basic Proportions Test

[2 points] What is a ratio?

A ratio is (a) addition (b) subtraction (c) multiplication (d) division

[3 points] What is a proportion?

A proportion is an equation for _____.

Solve for x. Show your work and CHECK that the ratios are equivalent by dividing.

(1) cross multiply (2) divide (3) check

1. $\frac{4}{x} = \frac{6}{5}$

x = _____
check:

✓

2. $\frac{1}{3} = \frac{x}{8}$

x = _____
check:

✓

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

x = _____
check:

✓

4. $\frac{x}{5} = \frac{1}{8}$

x = _____
check:

✓

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

x = _____
check:

✓

6. $\frac{1}{2} = \frac{x}{8}$

x = _____
check:

✓

7. $\frac{2}{9} = \frac{3}{x}$

x = _____
check:

✓

8. $\frac{x}{-2} = \frac{3}{4}$

x = _____
check:

✓

9. $\frac{12}{x} = \frac{5}{-9}$

x = _____
check:

✓

10. $-\frac{1}{2} = \frac{x}{10}$

x = _____
check:

✓

11. $\frac{1}{7} = \frac{7}{x}$

x = _____
check:

✓

12. $\frac{x}{50} = -\frac{1}{75}$

x = _____
check:

✓

Solve for x.

$$13. \frac{(x+2)}{10} = \frac{7}{14}$$

$$14. \frac{x+4}{12} = \frac{x}{9}$$

$$15. \frac{x+2}{14} = \frac{1}{2}$$

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

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

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

$$16. \frac{4}{x+11} = \frac{3}{6}$$

$$17. \frac{-2}{1} = \frac{x-2}{3}$$

$$18. \frac{2}{3} = \frac{6}{4-x}$$

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

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

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

$$19. \frac{4}{x} = \frac{3}{22}$$

$$20. \frac{-2}{5} = \frac{x}{16}$$

$$21. \frac{-6}{7} = \frac{x}{7}$$

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

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

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