NAME _____ DATE _____

Chapter Test C

For use after Chapter 3

Solve the equation.

1. $5 = -x - 5$

2. $|-12| + x = -10$

Tell whether the equations are equivalent.

3. $\frac{8}{9}x = \frac{2}{3}$ and $x = \frac{3}{4}$

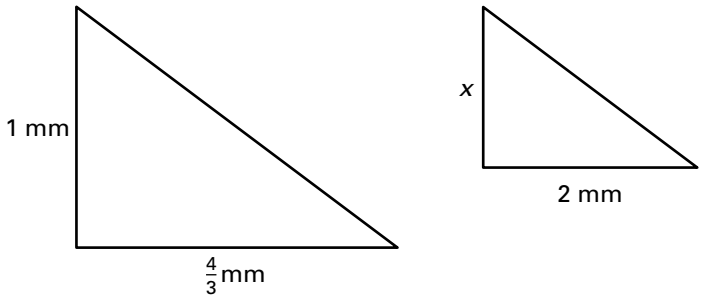
4. $\frac{3}{10}y = 40$ and $y = 12$

Solve the equation.

5. $\frac{2}{3}z = -4\frac{1}{9}$

6. $\frac{-5}{6}b = -|-20|$

7. The two triangles are similar triangles. Write and solve an equation to find the length of the side marked x.



Solve the equation.

8. $\frac{3}{2}(x + 12) = 27$

9. $-\frac{4}{5}(5x - 10) = 16$

10. $4x - 8(7 - x) = 16$

11. $45x - 4(12x - 3) = 12$

12. The sum of three numbers is 301. The second number is 3 less than twelve times the first number. The third number is 4 more than seven times the first number. Find the three numbers.

Solve the equation if possible.

13. $5(2 - x) + 7x = -3(x + 5)$

14. $\frac{2}{3}(18x - 12) = 7 - 3(x - 3)$

15. Two friends live 15 miles apart. One day, they decide to jog and meet each other. Tanya leaves her house and heads east, jogging at a rate of 2.5 miles per hour. At the same time Kelly leaves her house and heads west, jogging at a rate of 3.5 miles per hour. How long does it take for the two to meet?

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

NAME _____ DATE _____

Chapter Test C

For use after Chapter 3

Perform any indicated operation. Round the result to the nearest tenth and then to the nearest hundredth.

16. $18.653 \div (-9.849)$ **17.** $31.698(-4.107)$

Solve the equation. Round the result to the nearest hundredth.

18. $4.2(3.1 + 6.4x) = 17.5x - 2.3$

19. $-3(5.67 - 4.95x) = 15.06x + 4.15$

Multiply the equation by a power of 10 to write an equivalent equation with integer coefficients.

20. $8.6x + 1.09 = 21.5x + 16.9$ **21.** $2.694y - 21.9 = 0.08y$

Solve for the indicated variable.

22. Temperature Formula

Solve for F: $K = \frac{5}{9}(F - 32) + 273$

23. Annual Interest Rate

Solve for r: $A = P + Prt$

Rewrite the equation so that y is a function of x.

24. $\frac{1}{7}(49 - 7y) = 5x - 3y + 14$ **25.** $4(2x - 3y) = -5(x + 3y)$

26. Use the result in Exercise 24 to find y when $x = -1$, 0, and 2.

27. Use the result in Exercise 25 to find y when $x = -1$, 0, and 2.

28. A store sells 26 ounces of spaghetti sauce for \$1.17. The store also sells 34 ounces of the same spaghetti sauce for \$1.36. Which is the better buy?

29. A car uses fuel at a rate of 15 miles per gallon. Predict how many miles the car can travel on 31.5 gallons of fuel.

In Question 30, convert the measure. Round your answer to the nearest tenth.

30. 151.5 miles to kilometers (1 mile = 1.609 kilometers)

31. You and your family go to a restaurant. The bill is \$26.98 including \$1.53 in tax. Find the percent tax.

16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____
31. _____