Chapter 1 Practice Test

Solve the equation. Check your solution, if possible.

1. $y - 12 = 9$
2. $42 = 7x$
3. $5p - 7 = 28$
4. $1.5x + 1.3x = -8.4$
5. $4(3q - 2) = 16q$
6. $-h + 4 = -h + 9$
7. $\frac{1}{4}(n - 6) = \frac{1}{4}n - \frac{3}{2}$
8. $t + 3t - 7 = 4t - 7$
9. $3(g - 7) = 2(10 + g)$
10. $1.8 + 7n = 9.5 - 4n$

Each figure has the unusual property that the value of its perimeter (in feet) is equal to the value of its area (in square feet). Write an equation for each figure.

Solve each equation for x.

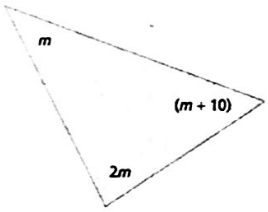
Use the value of x to find the perimeter and the area of each figure.

11.

12.

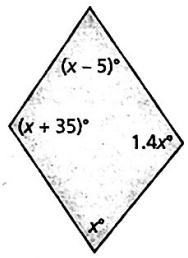
Find the value of x. Then find the angle measures of the polygon.

13.



Sum of angle measures: 180°

14.



Sum of angle measures: 360°

15. You rent a canoe for \$5 per hour. Your cost for the rental is \$12.50. Write and solve an equation to find the number of hours that you rented the canoe. $5h = 12.50$

16. The cost (in dollars) of making n birthday cakes is represented by $C = 24n + 35$. How many birthday cakes are made when the cost is \$395? Explain your reasoning.

17. You and your friend drive toward each other from different cities. The equation $50h = 190 - 45h$ represents the number of hours, h, until you and your friend meet. When will you meet?

Solve using Order of Operations:

18. $15 - 56 \div (-7) \cdot 3$
19. $-(-2)^2$
20. $2 \cdot (4 - 9) + 18 \div 3^2$

Answers

1. $y = 21$
2. $x = 6$
3. $p = 7$
4. $x = -3$
5. $q = -2$
6. No solution $\emptyset$
7. $\mathbb{R}$
8. $\mathbb{R}$
9. $g = 41$
10. $n = .7$
11. a. $x = \frac{9}{4}$ or 2.25
    b. $P = 40.5 / A = 40.5$
12. a. $x = 4$
    b. $P = 16 / A = 16$
13. $m = 42.5$
    42.5°, 52.5°
    85°
14. $x = 75$
    70°, 105°
    110°, 75°
15. 2.5 hours
16. 15 cakes
17. 2 hrs
18. 39
19. -4
20. -8