## **Chapter 3 Review**

- 1. Solve.
  - a) x + 5 = 9b) f - 7 = 3c) 3h = 15d)  $\frac{k}{4} = 3$
- 2. Solve.
  - a) 2x + 5 = 11
  - b) 3y 5 = -8
  - c) 10 + 4f = -34
  - d) -5m 3 = 12
- 3. Solve.
  - a) 5x + 2 = 12
  - b) 3p + 8 = 5
  - c) 4 + 6w = 2
  - d) -6 + 4u = -3
- John has \$23.65 to spend on a book and magazines. The book costs \$5.95. Each magazine costs \$2.95. Determine how many magazines John can buy.
- 5. Solve.
  - a) 5x + 4 = 2x + 13b) 4c - 3 = 2c + 5c) -3r + 7 = -5r - 3d) -6g - 4 = -3g + 2

- 6. Solve.
  - a) 2a + 5 = 6a + 9
  - b) 3b 7 = b + 5
  - c) 5n + 8 = 8n 10
  - d) -7d + 3 = -3d + 11
- 7. A triangle has angle measures that are related as follows:
  - The largest angle is 12 times the smallest angle
  - The middle angle is 5 times the smallest angle

Find the measures of the angles.

8. Solve.

a) 
$$\frac{1}{2}(x+3) = 5$$
  
b)  $\frac{b-5}{7} = 3$   
c)  $6 = \frac{2}{3}m - 1$   
d)  $-5 = \frac{3d+4}{3}$ 

- 9. Solve.
  - a)  $4 = \frac{5r+7}{3}$ b)  $\frac{1}{3}(p+5) = 2p-3$ c)  $3q + 15 = \frac{1}{2}(q-5)$ d)  $\frac{2b+5}{4} = 3$

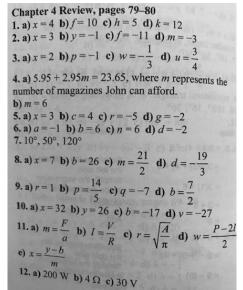
10. Solve.

a) 
$$\frac{x-5}{3} = \frac{x+4}{4}$$
  
b)  $\frac{3}{4}(y-2) = \frac{2}{3}(y+1)$   
c)  $\frac{b+5}{3} = \frac{b-3}{5}$   
d)  $\frac{3}{5}(v+2) = \frac{1}{2}(v-3)$ 

- 11.Rearrange each formula for the variable indicated.
  - a) F = ma for mb) V = IR for Ic)  $A = \pi r^2$  for rd) P = 2l + 2w for we) y = mx + b for x
- 12. The power, *P*, in an electric circuit is related to the voltage, *V*, and resistance, *R*, by the formula  $P = \frac{V^2}{R}$ .
  - a) Find the power, in watts (W), when the voltage is
    - 100 V (volts) and the resistance is 50 Ω (ohms).
  - b) What is the resistance of a circuit that uses 100 W of power with a voltage of 20 V?
  - c) The resistance of a circuit is
     15 Ω. The same circuit uses
     60 W of power. Find the
     voltage in the circuit.

- 13.The total of three cousins' ages is 48. Abbey is half as old as Ben and 4 years older than Colby. How old are the cousins?
- 14.Adele sells T-shirts at a concert.She earns \$8.00/h, plus 50 cents for each T-shirt she sells.
  - a) How much will Adele earn in a 4h shift if she sells 35 Tshirts?
  - b) How many T-shirts mustAdele sell to earn \$80 in a6h shift?

## Answers:



- 13. Abbey is 13, Ben is 26, Colby is 9
- 14. a) \$49.50 b) 64