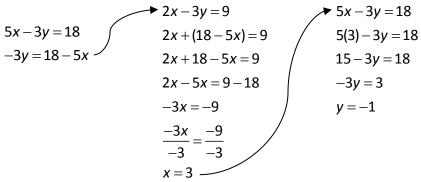
# Math 10

# **Lesson 5-2 Answers**

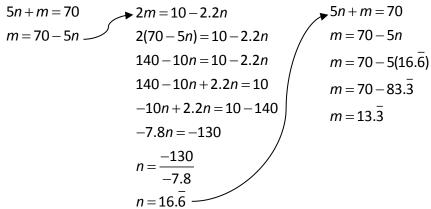
# **Lesson Questions**

#### Question 1



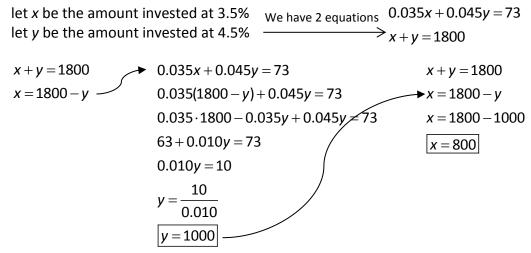
The solution is x = 3 and y = -1

#### **Question 2**



The solution is n = 16.7 and m = 13.3

### **Question 3**

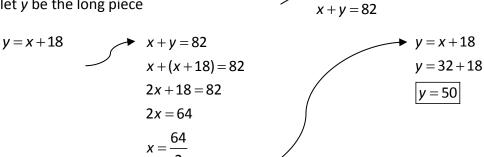


\$800 was invested at 3.5% and \$1000 was invested at 4.5%

L5-2

## **Question 4**

let x be the short piece let y be the long piece



We have 2 equations

The lengths of the pieces are 32 and 50.

## **Assignment**

1. a) 
$$x = 16$$
,  $y = -7$  b)  $x = 6$ ,  $y = 7$  c)  $x = -1$ ,  $y = -8$  d)  $x = 1$ ,  $y = 4$ 

b) 
$$x = 6$$
,  $y = 7$ 

x = 32

c) 
$$x = -1$$
,  $y = -8$ 

d) 
$$x = 1$$
,  $y = 4$ 

y = x + 18

2. a) 
$$x = -2$$
,  $y = 5$  b)  $x = -2$ ,  $y = 3$  c)  $x = 3$ ,  $y = 5$  d)  $x = 1$ ,  $y = 4$ 

b) 
$$x = -2$$
.  $y = 3$ 

c) 
$$x = 3$$
,  $y = 5$ 

d) 
$$x = 1$$
,  $y = 4$ 

3. Variables may differ.

$$2l + 2w = 540$$
 and  $l - w = 90$ 

Length: 180 cm; width: 90 cm

4. Variables may differ.

$$s + a = 45$$
 and  $0.8s + 0.6a = 31$ 

20 students and 25 adults

5. Variables may differ.

$$x + y = 11$$
 and  $4x + 5y = 47$ 

8 groups of 4 and 3 groups of 5

6. Variables may differ.

$$p + a = 85$$
 and  $0.6p + 0.4a = 38$ 

20 people masks; 65 animal masks

7. Variables may differ.

$$0.80A + 0.92B = 63$$
 and  $A + B = 75$ 

Part A: 50 marks; part B: 25 marks

8. Variables may differ.

$$x + y = 5000$$
 and  $0.025x + 0.0375y = 162.50$ 

Two thousand dollars in the 2.5% bond; \$3000 in the 3.75% bond

9. Variables may differ.

$$76s + 49d = 474.25$$
 and  $54s + 37d = 346.25$ 

Single-scoop cone: \$3.50; double-scoop cone: \$4.25



- 10. Joel would have to work 15 weekends before he earns the same amount as Sue.
- 11. a) 16 km/h
  - b) 40 km
- 12. Rate of climb: 200 m/min; rate of descent: -200 m/min
- 13. Some advantages of solving a linear system using the substitution strategy rather than graphing:
  - a. Easy to do.
  - b. Yields exact values.

L5-2