ML8 Chapter 10 Warm-Up Answers
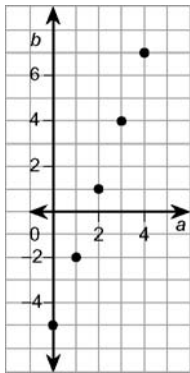
BLM 10–3 Chapter 10 Warm-Up

Section 10.1

1.

a	0	1	2	3	4
b	−5	−2	1	4	7

2.

3. Yes, it is a linear relation. The difference in consecutive values of a is the same, and the difference in consecutive values of b is the same. Also, the points on the graph lie along a straight line.

4. $y = 15$

5. 17.5 km

6. $9 \times 1 = 9$, $-9 \times (-1) = 9$, $3 \times 3 = 9$, $-3 \times (-3) = 9$

7. $45 \div 1 = 45$, $45 \div (-1) = -45$,
$45 \div 3 = 15$, $45 \div (-3) = -15$,
$45 \div 5 = 9$, $45 \div (-5) = -9$,
$45 \div 9 = 5$, $45 \div (-9) = -5$,
$45 \div 15 = 3$, $45 \div (-15) = -3$,
$45 \div 45 = 1$, $45 \div (-45) = -1$

8. $6 \times 30 = 180 \text{ cm}^3$

9. $(6 \times 20) + (6 \times 8) = 120 + 48 = 168 \text{ cm}^2$

10. Answers may vary. Example: $9^2 = 81$, $10^2 = 100$, $\sqrt{95} \approx 9.7$

Section 10.2

1. $-3t = -12$

2. -3

3. $t = 4$

4. $b = 75$

5. Left Side = $\dfrac{-b}{5}$ Right Side = -15
$= \dfrac{-75}{5}$
$= -15$
Left Side = Right Side

6. Answers will vary. Example:
$r^2 = 64$, $64 \approx 60$, $60 \times 3 = 180$
$100 \times 80 + 80 \times 80 = 8000 + 6400$
$= 14\ 400 \text{ cm}^3$

7. $\dfrac{6}{20} = \dfrac{3}{10}$

8. $\dfrac{3}{2}$

9. 1

10. 14

Section 10.3

1. $z = 4$

2. Left Side = $3z + 3$ Right Side = 15
$= 3(4) + 3$
$= 15$
Left Side = Right Side

3. a) Subtract 3 from both sides of the equal sign.
b) Add 6 to both sides of the equal sign.

4. a) $n = -5$
Left Side = 28   Right Side = $-5n + 3$
$= -5(-5) + 3$
$= 28$
Left Side = Right Side

b) $r = 18$
Left Side = $3r - 6$ Right Side = 48
$= 3(18) - 6$
$= 48$
Left Side = Right Side

5. No, the difference in consecutive values of b is the same, but the difference in consecutive values of a is not the same.

6. 333%, $3\dfrac{1}{3}$

7. 5.24, $5\dfrac{6}{25}$

8. 0.375, 37.5%

9. 3

10. a) $10^2 = 100$, $11^2 = 121$, $\sqrt{116} \approx 10.8$

b) $5^2 = 25$, $6^2 = 36$, $\sqrt{32} \approx 5.7$

Section 10.4

1. $x = 45$

2. a) Subtract 4 from both sides of the equal sign.
b) Subtract 6 from both sides of the equal sign.

3. a) Multiply both sides of the equal sign by -2.
b) Multiply both sides of the equal sign by -7.

4. a) $p = -16$

Left Side = $\dfrac{p}{-2} + 4$ Right Side = 12
$= \dfrac{-16}{-2} + 4$
$= 8 + 4$
$= 12$
Left Side = Right Side

b) $t = 196$

Left Side = -22 Right Side = $\dfrac{t}{-7} + 6$
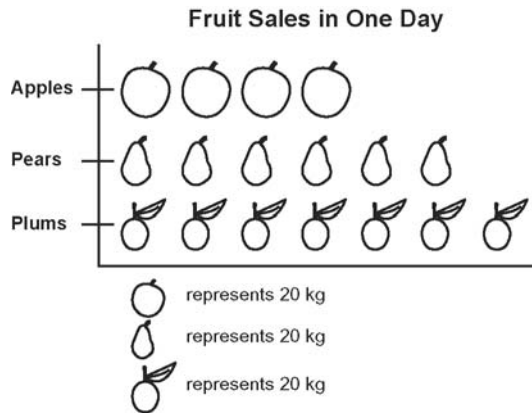$= \dfrac{196}{-7} + 6$
$= -28 + 6$
$= -22$
Left Side = Right Side

5. a) Answers will vary. Example: Apples seem to sell the best because they have the longest line on the pictograph.
b) Answers will vary. Example:

Fruit Sales in One Day

Apples

Pears

Plums

⚬ represents 20 kg

⚬ represents 20 kg

⚬ represents 20 kg

6. ☐ = 245 beats

7. ☐ = 1¢

8. ☐ = 17

9. $\dfrac{55}{7} = 7\dfrac{6}{7}$

10. ☐ = $\dfrac{7}{3}$