ML8 Chapter 3 Warm-Up Answers

BLM 3–3 Chapter 3 Warm-Up

Section 3.1

1. a) $\square = 72$ **b)** $\square = 7.96$

2. 32 m

3. $0.0505

4. 81.25 km

5. 33¢

6. $\frac{1}{4}$

7. 120º

8. $\frac{1}{8}$

9. 270º

10. 315º

Section 3.2

1. $1 \times 1 = 1$; $2 \times 2 = 4$; $3 \times 3 = 9$; $4 \times 4 = 16$; $5 \times 5 = 25$

2. $120 = 2 \times 2 \times 2 \times 3 \times 5$. This is not a perfect square.
$196 = 2 \times 2 \times 7 \times 7$. This is a perfect square.
$14^2 = 196$

3. 484 cm^2

4. $625 = 5 \times 5 \times 5 \times 5$; $\sqrt{625} = 25$

5. Answers will vary. Example: The shortened height of the graph and the fact that the space between the number increments is inconsistent make it appear as though there is more of a difference between the cost of a room at the West Hotel and the other hotels. In fact, the East Hotel is almost the same price as the West Hotel. The difference is in cents. This would be clearer if the graph started at 0 and had consistent increments.

6. 49

7. 100

8. 6

9. 11

10. 9

Section 3.3

1. 36 cm^2, 64 cm^2, 100 cm^2

2. 6 cm, 8 cm, 10 cm

3. 36 cm^2 + 64 cm^2 = 100 cm^2

4. No. Answers may vary. Example:
20.25 cm^2 + 30.25 cm^2 ≠ 56.25 cm^2

5. 5 : 3 : 8

6. $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 = 24 \times 24$;
$\sqrt{576} = 24$

7. $\square = 49$

8. $\square = 7$

9. $\square = 60$

10. $\square = 20$

Section 3.4

1. Estimates may vary. Example: 5.2
Check: 5.3

2. 101, 102, 103,..., 120

3. $5 \times 5 = 25$; $6 \times 6 = 36$. 30 is slightly less than halfway, so 5.4 or 5.5.

4. 5.5

5. 2 : 1 : 3

6. $2 \times 2 \times 3 \times 3 \times 3 \times 3 = 18 \times 18$; $\sqrt{324} = 18$

7. 5.1

8. $\square = 169$

9. $\square = 6$

10. $\square = 3$

Section 3.5

1. 6.7 cm

2. 13.9 m

3. 6.32 m

4. 8.94 m

5. 6 : 9 : 6 = 2 : 3 : 2

6. $2 \times 2 \times 11 \times 11 = 22 \times 22$

7. $3 \times 3 \times 7 \times 7 = 21 \times 21$

8. Estimates may vary. Example: 7.7 or 7.8

9. 81

10. 144