Chapter 7 BLM Answers

BLM 7–1 Chapter 7 Prerequisite Skills

1. a) $5\frac{3}{4}$ **b)** $3\frac{5}{8}$ **c)** $1\frac{11}{16}$ **d)** $7\frac{1}{16}$

2. a) $9\frac{9}{16}$ **b)** $4\frac{8}{11}$ **c)** $2\frac{9}{16}$ **d)** $4\frac{31}{36}$

3. a) 54°   **b)** $a = 42°$, $b = 48°$ **c)** $x = 32°$, $y = 97°$

4. a) isosceles   **b)** right
   c) obtuse   **d)** equilateral

5. 720°; 120°

6. a) square   **b)** hexagon
   c) trapezoid   **d)** pentagon

7. a) 41.6 m; 93.0 m^2 **b)** 44.0 m; 153.9 m^2
   c) 10.2 km; 3.8 km^2 **d)** 21.6 mm; 27.7 mm^2

8. a) 238.5 cm^2; 196.2 cm^3
   b) 218.3 m^2; 223.8 m^3

BLM 7–3 Chapter 7 Review

1. a) 35.6 cm   **b)** 1.6 m
   c) 6.4 m   **d)** 96.6 km

2. a) 17.7 in.   **b)** 28.2 ft
   c) 352.3 mi   **d)** 81.8 yd

3. a) 348.4 cm^2 **b)** 8.4 m^2
   c) 209 m^2 **d)** 1144.8 km^2

4. a) 7.4 in.^{2} **b)** 602.8 ft^2
   c) 392.3 yd^2 **d)** 13.5 mi^2

5. a) 83   **b)** $156.87

6. a) $1003\frac{15}{16}$ in.^{2} **b)** 218.8 cm^2 **c)** 30 in.^{2}

7. a) 166.22 m^2 **b)** $5350

8. 353.4 in.^{2}

9. a) 3277 cm^3 **b)** 48.9 m^3
   c) 1.0 m^3 **d)** 8.8 km^3

10. a) 23.2 in.^{3} **b)** 2789.9 ft^3
   c) 3281.7 yd^3 **d)** 1.3 ft^3

11. a) $167\frac{1}{16}$ in.^{3} **b)** 5.5 m^3

   c) 8.2 ft^3 **d)** 27.7 cm^3

12. 6.4 cm

13. a) B   **b)** F   **c)** D
   d) A   **e)** C   **f)** E

14. 8.6 in.

15. 3.0 m

16. 443.2 cm^2

17. 1.8 ft^2

18. $x = 82°$, $y = 90°$, $z = 38°$

19. $c = 8$ m, $x = 2$ m, $t = 12$ m

20. a) 15 m   **b)** 35.7 m

21. 12 in.^{2}

BLM 7–4 Chapter 7 Practice Test

1. a) 86.4 cm   **b)** 4.0 m
   c) 274.3 m   **d)** 3379.6 km

2. a) 944.9 ft   **b)** 326.2 mi
   c) 35 in.   **d)** 1181.1 yd

3. a) 5.4 m^2 **b)** 2787.1 cm^2
   c) 7441.5 m^2 **d)** 194 249.1 km^2

4. a) 231.9 in.^{2} **b)** 4.6 mi^2
   c) 11 074.9 yd^2 **d)** 9149.3 ft^2

5. a) 168 347.6 ft^2
   b) Example: It is easier to calculate the area and
       then convert because there are fewer
       calculations required.

6. 94.1 in.^{3}

7. 11.8 ft^2

8. a) $121\frac{1}{2}$ in.^{2}; $91\frac{1}{8}$ in.^{3}
   b) 7037.2 cm^2; 70371.7 cm^3

9. 18 138 cm^2

10. a) 166.8 ft^2 **b)** $493.56

11. a) 14.4 m^2 **b)** 3.2 m^3

12. 26 389.4 cm^2

13. 3375 ft^3

14. 12 cm

15. a) B   **b)** D   **c)** C   **d)** A

16. 2.6 cm

17. 105°

18. 27.9 km^2

19. 590.2 yd^2

20. 28.6 cm

21. 8.9 in.

22. $x = 32°$, $y = 13.9$ m

23. $m = 67°$, $n = 134°$

24. a) 44 m   **b)** 31.6 m

25. 3.8 m^2

BLM 7–5 Chapter 7 Case Study

1. 120 960 cm^3

2. a) 28 512 cm^2 **b)** 20 600 cm^2
   c) 31 305 cm^2 **d)** 16 826 cm^2
   e) 8100 cm^2

3. 105 343 cm^2

4. 12 m^2