

Chapter 3 BLM Answers

BLM 3-2 Chapter 3 Warm-Up

Section 3.1

1. 675 ft^2
2. 90 m^2
3. 54 in.^2
4. 531 in.^2
5. 615 cm^2

Section 3.2

1. 15 ft^2
2. 30 ft^3
3. 36 mm^2
4. 72 mm^3
5. 2123 m^3

Section 3.3

1. 12 qt
2. 48 fl oz
3. 1.5 cups
4. 20 cups
5. 40 glasses

Section 3.4

1. 340 cm^3
2. 1282 in.^3
3. rectangular prism and triangular prism
4. 1200 m^3
5. 368 ft^3

BLM 3-3 Section 3.1 Extra Practice

1. **a)** rectangle **b)** Example: 160 m^3
c) 35 m^2 **d)** 157.5 m^3
2. **a)** circle **b)** Example: 540 cm^3
c) 28.26 cm^2 **d)** 565.2 cm^3
3. **a)** triangle **b)** Example: 40 in.^3
c) 15 in.^2 **d)** 45 in.^3
4. **a)** 21 ft^3 **b)** 105 mm^3 **c)** 9420 in.^3
5. 4 cm
6. **a)** 351 in.^3 **b)** 13 ft^3
7. 381.51 in.^3
8. 14 ft^3
9. **a)** Example: 2700 in.^2
b) Example: $32\,000 \text{ in.}^3$ **c)** $33\,912 \text{ in.}^3$
d) 20 bags
10. **a)** 120 cu ft. **b)** 9.4 cu ft.

BLM 3-4 Section 3.2 Extra Practice

1. **a)** shampoo: ounce; tank: gallon; teapot: cup; juice: quart
b) dispenser: cm^3 ; pot: L; perfume: mL

2. **a)** 4 **b)** 16 **c)** 48 **d)** 8 **e)** 32
f) 2 **g)** $\frac{1}{8}$ **h)** $\frac{1}{2}$ **i)** $2\frac{1}{2}$ **j)** 4 **k)** 16
l) 1 **m)** 32 **n)** 128 **o)** 128
3. 20
4. **a)** 9; 0 oz **b)** 7; 2 oz **c)** 5; 2 oz
d) 3; 12 oz
5. **a)** 3.78 L **b)** 1.89 L
6. **a)** 3 L **b)** 500 mL
7. **a)** 1 L **b)** 250 mL

BLM 3-5 Section 3.3 Extra Practice

1. **a)** 335 mm^3 **b)** 536 in.^3
2. **a)** 1005 mm^3 **b)** 1608 in.^3
3. **a)** 670 mm^3 **b)** two times greater
4. **a)** 2144 in.^3 **b)** four times greater
5. 151 m^3
6. 221 in.^3
7. 2400 ft^3
8. **a)** rectangular prism, triangular prism
b) rectangular prism, cylinder
c) two rectangular prisms, triangular prism
9. **a)** 1792 cm^3 **b)** 121 in.^3 **c)** 6944 cm^3
10. 1248 ft^3

BLM 3-6 Section 3.4 Extra Practice

1. **a)** 4187 in.^3 **b)** 2.4 ft^3
2. **a)** $14\,130 \text{ cm}^3$ **b)** 0.01413 m^3
3. **a)** 33 ft^3 **b)** 268 m^3
4. **a)** 113 in.^3 **b)** 904 in.^3 **c)** No
5. **a)** $113\,040 \text{ mm}^3$
b) Example: $900\,000 \text{ mm}^3$
c) $904\,320 \text{ mm}^3$
d) 8 times greater. If the diameter is doubled, then the radius is doubled. Then the radius is cubed: $2^3 = 8$.

BLM 3-7 Chapter 3 Test

1. B
2. C
3. B
4. B
5. C
6. D
7. D
8. 16 pints
9. **a)** 405 m^3 **b)** 14 h 51 min
10. The steak weighs $\frac{1}{2}$ pound and the lobster weighs $\frac{1}{4}$ pound.

