

# Chapter 1 BLM Answers

## BLM 1-2 Chapter 1 Warm-Up

### Section 1.1

1. Example: 6 feet 6 inches
2. Example: 3 metres
3. Example: 27 inches
4. 15 in.
5. 30 m

### Section 1.2

1.  $12 \text{ in.}^2$
2.  $240 \text{ mm}^2$
3.  $84 \text{ ft}^2$
4.  $113 \text{ in.}^2$
5.  $254 \text{ m}^2$

### Section 1.3

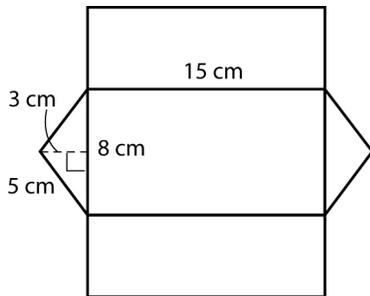
1. Example: 12 in.
2. Example: 7 cm
3. Example: 7 ft
4. Example: 9 m
5. Example:  $144 \text{ cm}^2$

### Section 1.4

1.  $62 \text{ ft}^2$
2.  $17\,000 \text{ cm}^2$
3.  $294 \text{ ft}^2$
4.  $448 \text{ cm}^2$
5.  $553 \text{ cm}^2$

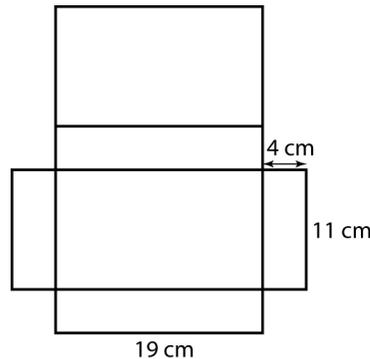
## BLM 1-5 Section 1.1 Extra Practice

1. a)  $70 \text{ in.}^2$  b)  $48 \text{ cm}^2$  c)  $168 \text{ mm}^2$
2. a) Example:



- b)  $294 \text{ cm}^2$
3. a)  $452 \text{ in.}^2$  b)  $113 \text{ cm}^2$
4. a) Canadian province:  $\text{mi}^2$ ;  
cell phone screen:  $\text{in.}^2$ ; kitchen floor:  $\text{ft}^2$ ;  
football field:  $\text{yd}^2$
- b) ceramic tile:  $\text{cm}^2$ ; backyard:  $\text{m}^2$ ;  
provincial park:  $\text{km}^2$ ; smart phone key:  $\text{mm}^2$
5. a)  $91 \text{ ft}^2$  b)  $41.4 \text{ mm}^2$
6. a)  $13\,104 \text{ in.}^2$  b)  $0.414 \text{ cm}^2$
7. a) 47 cm b) 50 in.

8. a) Example:



- b)  $658 \text{ cm}^2$
9. a)  $16 \text{ in.}^2$  b)  $35 \text{ in.}^2$

## BLM 1-6 Section 1.2 Extra Practice

1. Examples: a)  $1\frac{1}{2} \text{ ft} \times 2 \text{ ft} = 3 \text{ ft}^2$
- b)  $1\frac{1}{2} \text{ ft} \times 2 \text{ ft} = 3 \text{ ft}^2$
- c) They are the same.
2. Examples: a)  $50 \text{ cm} \times 60 \text{ cm} = 3000 \text{ cm}^2$
- b)  $46 \text{ cm} \times 61 \text{ cm} = 2806 \text{ cm}^2$
- c) The estimate is  $194 \text{ cm}^2$  greater than the calculation.
3. Examples: a)  $20 \text{ cm} \times 25 \text{ cm} = 500 \text{ cm}^2$
- b)  $21 \text{ cm} \times 26 \text{ cm} = 546 \text{ cm}^2$
- c) The calculation is  $46 \text{ cm}^2$  greater than the estimate.
4. Example:  $80 \text{ cm}^2$
5. Examples:
  - a)  $4(2 \times 0.75 \text{ m} \times 2 \text{ m}) = 12 \text{ m}^2$  b) 2
  - c)  $4(2 \times 0.76 \text{ m} \times 2.03 \text{ m}) = 12.3 \text{ m}^2$
  - d) The calculation is  $0.3 \text{ m}^2$  greater than the estimate.
  - e)  $4(2 \times 3 \text{ ft} \times 6 \text{ ft}) = 144 \text{ ft}^2$  f) 1
  - g)  $4\left(2 \text{ ft} \times 2\frac{1}{2} \text{ ft} \times 6\frac{2}{3} \text{ ft}\right) = 133\frac{1}{3} \text{ ft}^2$
  - h) The estimate is  $10\frac{2}{3} \text{ ft}^2$  greater than the calculation.
6. a)  $1 \text{ ft}^2$  b)  $0.25 \text{ ft}^2$  or  $\frac{1}{4} \text{ ft}^2$  c)  $4 \text{ ft}^2$
- d)  $1 \text{ m}^2$  e)  $0.25 \text{ m}^2$  f)  $4 \text{ m}^2$
7. Examples: a)  $6 \text{ in.}^2$  b)  $288 \text{ in.}^2$
- c)  $18 \text{ in.}^2$  d)  $40 \text{ in.}^2$  e)  $24 \text{ in.}^2$
8. Examples: a)  $40 \text{ cm}^2$  b)  $1800 \text{ cm}^2$
- c)  $120 \text{ cm}^2$  d)  $250 \text{ cm}^2$  e)  $150 \text{ cm}^2$
9. Examples: a)  $900 \text{ ft}^2$  b)  $300 \text{ ft}^2$
- c)  $24 \text{ ft}^2$



10. Examples: **a)**  $100 \text{ m}^2$  **b)**  $30 \text{ m}^2$   
**c)**  $2 \text{ m}^2$   
 11. Example:  $5 \text{ in.}^2$   
 12. Example:  $900 \text{ cm}^2$

**BLM 1-7 Section 1.3 Extra Practice**

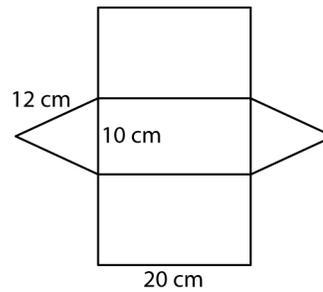
1. **a)**  $11\,100 \text{ cm}^2$  **b)**  $72 \text{ ft}^2$   
 2. **a)**  $7080 \text{ in.}^2$  **b)**  $5988 \text{ in.}^2$  **c)**  $42 \text{ ft}^2$   
 3. **a)**  $1 \text{ in.}^2$  **b)**  $6 \text{ in.}^2$  **c)**  $24 \text{ in.}^2$  **d)** No  
 4. **a)**  $816 \text{ m}^2$  **b)**  $300 \text{ in.}^2$   
 5. **a)**  $1536 \text{ m}^2$ ; No **b)**  $480 \text{ in.}^2$ ; No  
 6.  $126 \text{ cm}^2$   
 7. **a)**  $112 \text{ cm}^2$  **b)**  $868 \text{ in.}^2$   
 8.  $3124 \text{ mm}^2$   
 9. **a)**  $220 \text{ cm}^2$  **b)**  $99 \text{ in.}^2$   
 10.  $4.5 \text{ ft}^2$

**BLM 1-8 Section 1.4 Extra Practice**

1. **a)**  $13 \text{ cm}$  **b)**  $5 \text{ in.}$   
 2. **a)**  $78.5 \text{ cm}^2$  **b)**  $28.3 \text{ in.}^2$   
 3. **a)**  $204.2 \text{ cm}^2$  **b)**  $47.1 \text{ in.}^2$   
 4. **a)**  $282.7 \text{ cm}^2$  **b)**  $75.4 \text{ in.}^2$   
 5.  $9.43 \text{ in.}^2$   
 6.  $52.28 \text{ cm}^2$   
 7. **a)**  $452.38 \text{ in.}^2$  **b)**  $530.93 \text{ mm}^2$   
 8.  $277.59 \text{ in.}^2$   
 9. **a)**  $1662 \text{ cm}^2$  **b)**  $1039 \text{ cm}^2$  **c)**  $623 \text{ cm}^2$

**BLM 1-9 Chapter 1 Test**

1. **a)**



- b)**  $790 \text{ cm}^2$   
 2.  $7.1 \text{ m}^2$   
 3. **a)**  $56.5 \text{ m}^2$  **b)**  $70.7 \text{ m}^2$   
 4. **a)** rectangular prism: shoe box  
**b)** triangular prism: glass prism  
**c)** cylinder: oil drum  
**d)** cube: sugar cube  
 5. **a)** 2304 square feet  
**b)** 6 gallons; 0.24 gallons  
 6. Example: An estimate for the sphere's surface area is  $4800 \text{ ft}^2$ . An estimate for the cone's surface area is  $1500 \text{ ft}^2$ .  
 7. **a)** two spheres and a cylinder  
**b)** Example: The spheres have a diameter of about  $\frac{1}{4}$  in. The cylinder has a length of about 2 in. and a diameter of about  $\frac{1}{16}$  in.  
**c)** Example:  $0.8 \text{ in.}^2$

