

# BLM Answers

## BLM 1.GR.1: Get Ready

### Fraction and Number Sense

1. a)  $\frac{1}{3}, \frac{2}{5}, \frac{7}{10}, \frac{3}{4}$       b)  $\frac{1}{2}, \frac{3}{5}, \frac{5}{8}, \frac{5}{6}$   
c)  $\frac{5}{4}, \frac{4}{3}, \frac{3}{2}, 2$       d)  $\frac{7}{8}, \frac{10}{11}, 1, \frac{11}{10}$   
e)  $\frac{4}{7}, \frac{2}{3}, 1, 1\frac{1}{4}$       f)  $\frac{49}{100}, \frac{1}{2}, \frac{5}{9}, \frac{8}{13}$
2. a)  $\frac{13}{10}$       b)  $\frac{3}{4}$       c) 3  
d)  $\frac{3}{4}$       e)  $\frac{5}{24}$       f) 8

### Ratio and Proportion

3. a) 8:1      b) 9:1      c) 1:3  
d) 6:5      e) 1:4:6      f) 2:10:9
4. a) 48      b) 9      c) 5  
d) 3      e) 5      f) 15
5. a)  $m = 50$       b)  $x = 12$   
c)  $a = 1$       d)  $g = 20$   
e)  $v = 32$       f)  $x = 33$

### Angle Problems

6. a)  $x = z = 55^\circ, y = 125^\circ$       b)  $a = 70^\circ, b = c = 110^\circ$   
c)  $x = z = 45^\circ, y = 135^\circ$       d)  $a = c = 55^\circ, b = 125^\circ$   
e)  $\angle x = 100^\circ$       f)  $\angle y = 60^\circ$   
g)  $\angle a = 60^\circ$

## BLM 1.1.1: Imperial Measure

1. a) 5.69 inches      b) 5.08 inches
2. a) 1.25      b) 5      c) 36
3. a) 25      b) 240      c) 100
4. a) 512      b) 2048      c) 480
5. a) 480      b) 1056      c) 384      d) 1296
6. a) 7      b) 12      c) 15      d) 22
7. a) sq feet, sq inches, sq inches  
b) ounces, pounds, pounds  
c) fluid ounces, pints, gallons
8. 2.5
9. a) 180 ft  
b) 60 yards
10. a) 360 square ft  
b) 40 square yards  
c) \$10

## BLM 1.2.1: Conversions Between Metric and Imperial Systems

1. a) 4      b) 19      c) 17  
d) 74      e) 3      f) 230

2. a) 32      b) 9      c) 11  
d) 30      e) 87      f) 43
3. 10
4. 146 cm
5. 640
6. a)  $32^\circ\text{C}$   
b)  $22^\circ\text{C}$
7. \$1.60
8. Kane Street at \$25 for 10 gallons of gas.
9. The Sun Supermarket at \$3.25 for 2 pounds of strawberries.

## BLM 1.3.1: Similar Triangles

1. a)  $\angle M = \angle P, \angle N = \angle Q, \angle O = \angle R$   
b) MN/PQ, MO/PR, NO/QR  
c)  $\frac{MN}{PQ} = \frac{MO}{PR} = \frac{NO}{QR}$
2. a)  $\angle A = \angle D, \angle B = \angle F, \angle C = \angle E$   
b) AB/DF, AC/DE, BC/EF  
c)  $\frac{AB}{DF} = \frac{AC}{DE} = \frac{BC}{EF}$
3. a) *Graphs vary. Please make sure that the side lengths of the similar triangle maintain the ratios for the side lengths AB = 5, BC = 4, AC = 3*  
b) *Graphs vary. Please make sure that the side lengths of the similar triangle maintain the ratios for the side lengths DE = 3, EF = 3, DF = 6*  
c) *Graphs vary. Please make sure that the side lengths of the similar triangle maintain the ratios for the side lengths GH = 4, HI = 2, GI = 1*
4. GI = 5, LK = 14,  $\angle H = 42^\circ, \angle G = \angle J = 52^\circ, \angle L = 86^\circ$
5. AB = 3, CD = 6.32
6. 1.6
7. 12.8

## BLM 1.4.1: Solve Problems Using Similar Triangles

1. 1 m
2. 2 m
3. 16 cm
4. 40 cm
5. ramp 1 is 1.25 m, ramp 2 is 1 m
6. 30 ft
7. second candle is 12 cm tall, third candle is 16 cm tall

# BLM Answers

## BLM 1.CR.1: Chapter 1 Review

1. a) 19      b) 11.25      c) 1920      d) 200
2. a) 60 ft; 20 yd      b) \$50
3. a)  $54 \text{ ft}^2$       b)  $6 \text{ yd}^2$       c) \$9.90
4. Estimate each measure for the indicated units.  
a) 7      b) 72      c) 13  
d) 48      e) 9
5. \$5 per gallon
6. a) 8      b)  $13.5^\circ$
7.  $NP = 6.3 \text{ cm}$ ,  $\angle M = 50^\circ$ ,  $\angle N = 82^\circ$ ,  
 $TV = 24.3 \text{ cm}$ ,  $\angle T = 50^\circ$ ,  $\angle V = 48^\circ$
8.  $DE = 8$
9. 2.67 m

## BLM 1.PT.1: Practice Test

### Multiple Choice

1. C
2. D
3. B
4. C
5. D
6. D
7. A
8. D

### Short Response

9. a) 200      b) 212      c) 8      d) 7257
10.  $12^\circ\text{C}$
11.  $AC = 12$

### Extended Response

12. a) 36  
b) 4  
c) \$2
13. Than was charged \$3 per gallon. Lilly was charged \$2.70 per gallon. So, Lilly got the better deal.
14. 12.8 m

## BLM 1.CT.1: Chapter Test

### Multiple Choice

1. A
2. B
3. B
4. A
5. B
6. C
7. B
8. A

### Short Response

9. The temperature in Hawaii is about  $30^\circ\text{C}$ , while the temperature in Peterborough is  $26^\circ\text{C}$ . So, Hawaii is about 4 degrees warmer.
10. a) 6      b) 95      c) 100      d) 9072
11.  $MO = 24$

### Extended Response

12. a) 108 square feet; 12 square yards  
b) \$15
13. Herman's Grocery has the better deal, since it charges \$1.50 per lb, while Chi's Grocery charges about \$1.75 per lb.
14. 750 m