

BLM Answers

Get Ready

1. a) $\sin D = \frac{6.2}{7.4}$, $\cos D = \frac{4.1}{7.4}$, $\tan D = \frac{6.2}{4.1}$

b) $\angle D = 57^\circ$, $\angle E = 33^\circ$

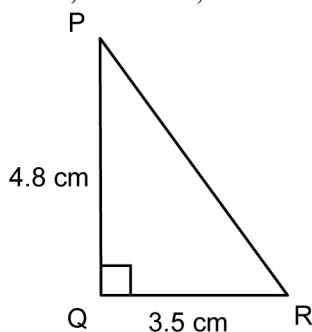
2. a) 9.1 cm

b) $\sin B = \frac{4.7}{9.1}$, $\cos B = \frac{7.8}{9.1}$, $\tan B = \frac{4.7}{7.8}$

c) $\angle A = 59^\circ$, $\angle B = 31^\circ$

3. $\angle L = 37^\circ$, $k = 8.8$ cm, $l = 6.6$ cm

4. a)



b) $\angle P = 36^\circ$, $\angle R = 54^\circ$, $q = 5.9$ cm

5. 21.9 m

6. 118 m

7. a) $a = P - b - c$ b) $t = \frac{d}{s}$

c) $F = ma$

8. a) $b^2 = c^2 - a^2$ b) $m = \frac{y-b}{x}$

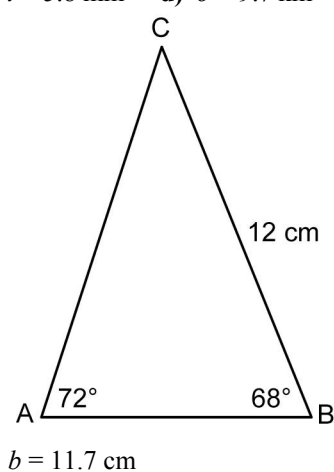
c) $a = \frac{b \sin A}{\sin B}$

Section 8.1 Practice Master

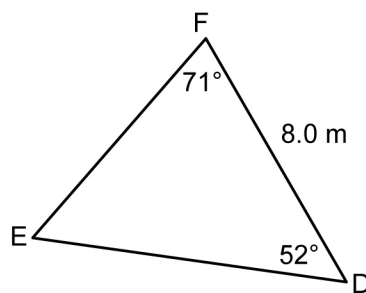
1. a) $r = 7.2$ cm b) $y = 13.1$ m

c) $l = 5.8$ mm d) $o = 9.7$ km

2. a)



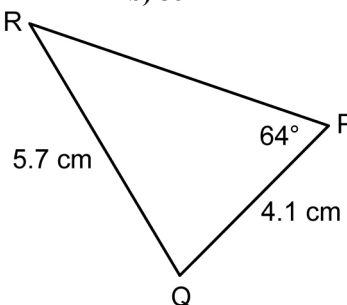
b)



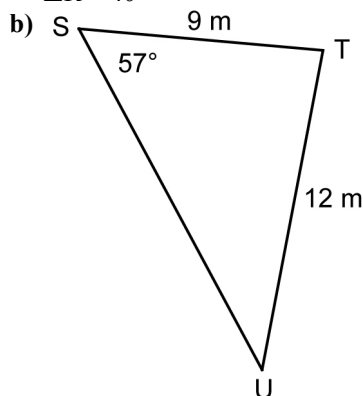
3. a) $d = 7.5$ m

b) 35°

4. a)



b) $\angle R = 40^\circ$



$\angle U = 39^\circ$

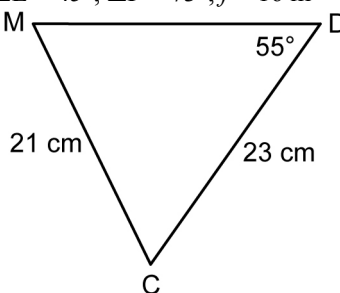
5. a) $\angle I = 60^\circ$, $h = 13$ cm, $i = 11$ cm

b) $\angle T = 75^\circ$, $s = 11$ m, $t = 14$ m

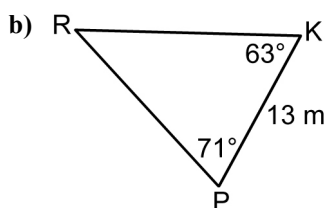
6. a) $\angle A = 59^\circ$, $a = 17$ cm, $c = 11$ cm

b) $\angle E = 45^\circ$, $\angle F = 73^\circ$, $f = 16$ m

7. a)



$\angle C = 61^\circ$, $\angle M = 64^\circ$, $c = 22$ cm

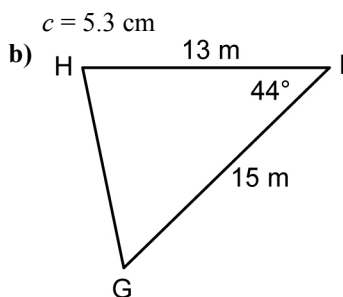
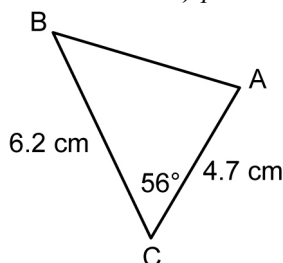


$\angle R = 46^\circ$, $k = 16$ m, $p = 17$ m

8. a) Construct $\triangle DMC$. Measure side c , $\angle M$, and $\angle C$ using the measuring tools.
b) Construct $\triangle KPR$. Measure side k , side p , and $\angle R$ using the measuring tools.
9. a) 35° b) 22 m

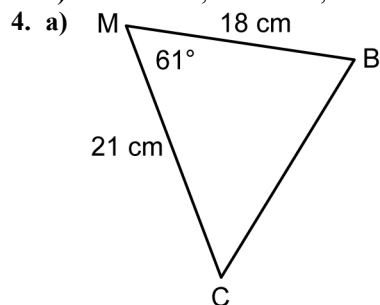
Section 8.2 Practice Master

1. a) $d = 16.6$ cm b) $p = 5.9$ mm d) $z = 11.9$ cm
2. a)

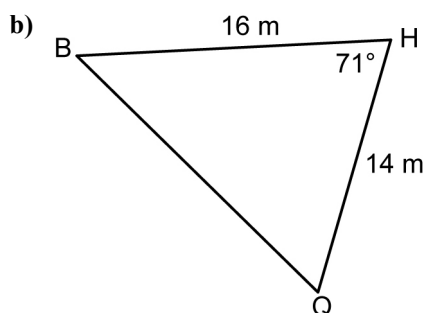


$i = 10.7$ m

3. a) $m = 3.5$ m, $\angle A = 54^\circ$, $\angle D = 78^\circ$
b) $x = 12.7$ mm, $\angle W = 51^\circ$, $\angle P = 66^\circ$
c) $l = 10.6$ cm, $\angle G = 44^\circ$, $\angle J = 54^\circ$



$m = 20.0$ cm, $\angle C = 52^\circ$, $\angle B = 67^\circ$

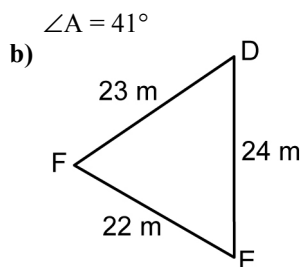
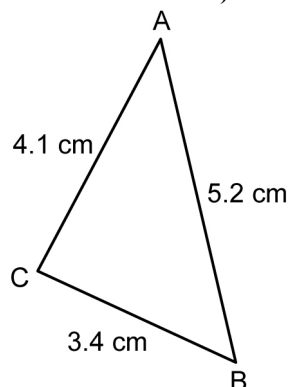


$h = 17.5$ m, $\angle B = 49^\circ$, $\angle Q = 60^\circ$

5. a) Construct $\triangle MCB$. Measure side m , $\angle B$, and $\angle C$ using the measuring tools.
b) Construct $\triangle HBQ$. Measure side h , $\angle B$, and $\angle Q$ using the measuring tools.
6. 42 m

Section 8.3 Practice Master

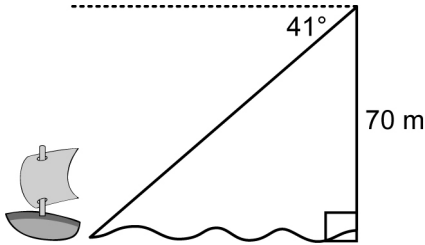
1. a) $\angle A = 50^\circ$ b) $\angle D = 61^\circ$
2. a) $\angle P = 60^\circ$ b) $\angle K = 87^\circ$
3. a)

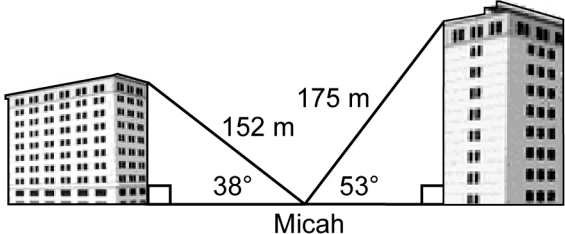


$\angle E = 60^\circ$

4. a) $\angle M = 50^\circ$, $\angle R = 57^\circ$, $\angle V = 73^\circ$
b) $\angle S = 44^\circ$, $\angle P = 78^\circ$, $\angle T = 58^\circ$
5. a) $\angle D = 43^\circ$, $\angle E = 57^\circ$, $\angle F = 80^\circ$
b) $\angle P = 47^\circ$, $\angle Q = 58^\circ$, $\angle R = 75^\circ$
6. a) Construct $\triangle DEF$. Measure $\angle D$, $\angle E$, and $\angle F$ using the measuring tools.
b) Construct $\triangle PQR$. Measure $\angle P$, $\angle Q$, and $\angle R$ using the measuring tools.
7. a) 58° , 58° , 64° b) 6 m²

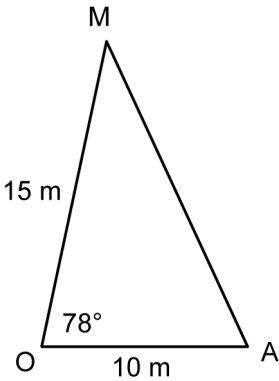
Section 8.4 Practice Master

- sine law
 - cosine law
 - primary trigonometric ratios
 - cosine law
- $x = 3.2$ cm
 - Answers may vary.
- 6.9 km
 - $\angle O = 68^\circ$, $\angle E = 42^\circ$, $\angle L = 70^\circ$
- 

- 80.5 m
- 

- 230 m
 - height of first building 94 m, height of second building 140 m
 - distance from first building 120 m, distance from second building 105 m
- 1.3 km

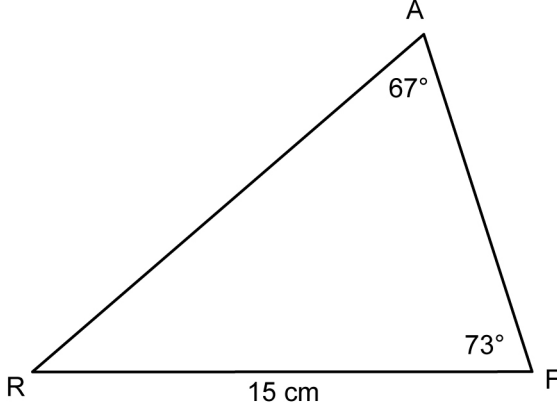
Chapter 8 Review

- $a = 11.4$ cm
- $\angle P = 76^\circ$
- $\angle Z = 71^\circ$, $x = 25.1$ km, $y = 23.0$ km
 - $\angle F = 43^\circ$, $e = 8.5$ m, $f = 6.4$ m
- 

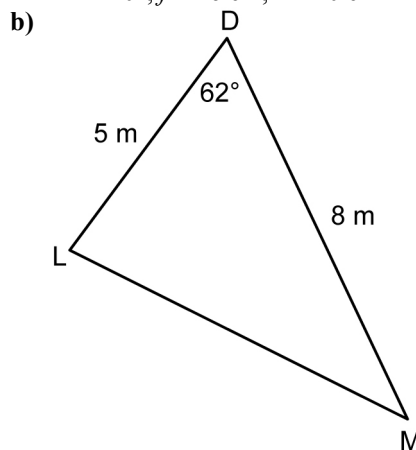
- 16.2 m
- $d = 14.1$ cm
 - $b = 15.5$ m, $\angle T = 55.1^\circ$, $\angle L = 83.0^\circ$
 - $m = 14.7$ m, $\angle R = 41.9^\circ$, $\angle G = 60.2^\circ$
 - $\angle S = 50^\circ$

- $\angle J = 54.0^\circ$, $\angle N = 59.6^\circ$, $\angle G = 66.4^\circ$
 - $\angle B = 45.2^\circ$, $\angle X = 59.2^\circ$, $\angle R = 75.6^\circ$
- 5.4 m

Chapter 8 Practice Test

- B
- D
- A
- C
- B
- $m = 14.7$ mm
 - $s = 8.2$ km
- $\angle H = 49.8^\circ$
 - $\angle P = 57.1^\circ$
- Construct $\triangle HRS$. Make sure you have set **Units** to tenths. Measure $\angle H$ using the measuring tools.
 - Construct $\triangle FPT$. Make sure you have set **Units** to tenths. Measure $\angle T$ using the measuring tools.
- 

$$\angle R = 40^\circ, f = 16 \text{ cm}, r = 10 \text{ cm}$$

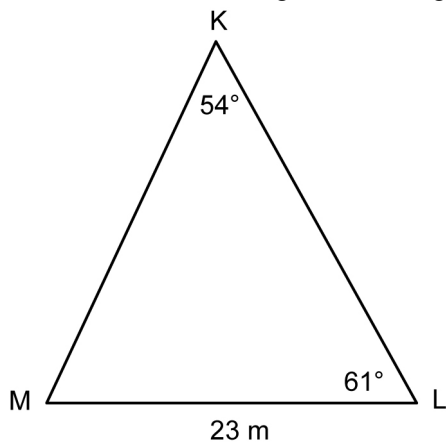


$$d = 7 \text{ m}, \angle M = 38^\circ, \angle L = 80^\circ$$

- 113 m

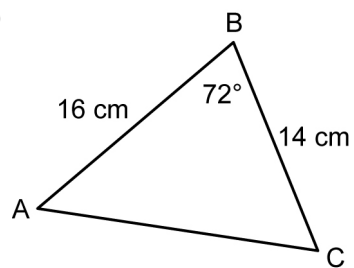
Chapter 8 Test

1. A
2. C
3. B
4. D
5. B
6. a) $t = 16.8$ cm b) $f = 22.1$ mm
7. a) $\angle L = 46.0^\circ$ b) $\angle U = 52.0^\circ$
8. a) Construct $\triangle PXL$. Make sure you have set **Units** to tenths. Measure $\angle L$ using the measuring tools.
b) Construct $\triangle NUR$. Make sure you have set **Units** to tenths. Measure $\angle U$ using the measuring tools.
9. a)



$\angle M = 65^\circ$, $l = 25$ m, $m = 26$ m

b)



$b = 18$ cm, $\angle A = 49^\circ$, $\angle C = 59^\circ$

10. 420 m