

BLM Answers

Get Ready

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

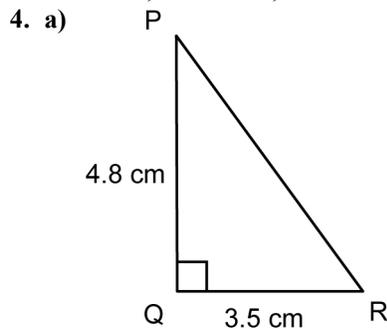
b) $\angle D = 57^\circ$, $\angle E = 33^\circ$

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



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) $F = ma$

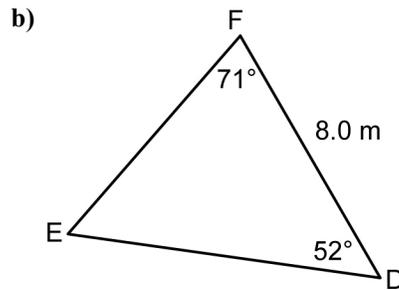
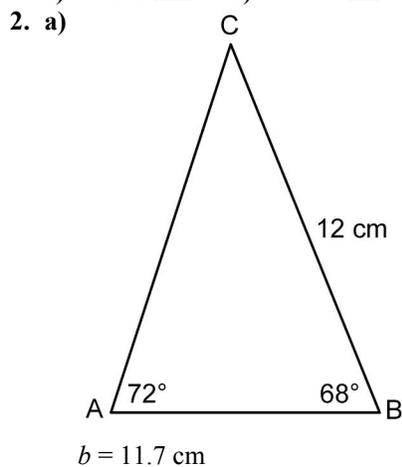
8. a) $b^2 = c^2 - a^2$ b) $m = \frac{y-b}{x}$

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

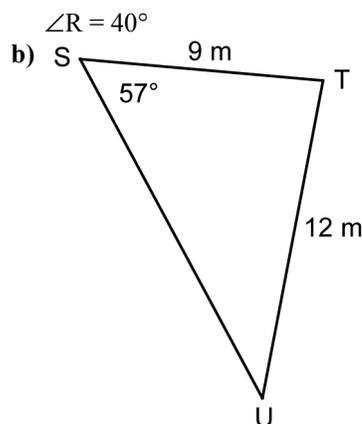
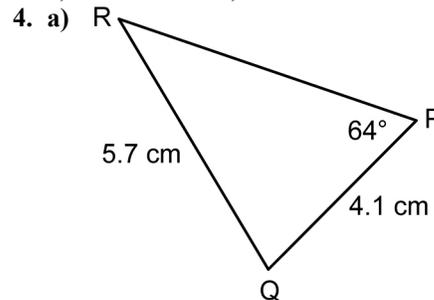
Section 8.1 Practice Master

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

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



3. a) $d = 7.5$ m b) 35°



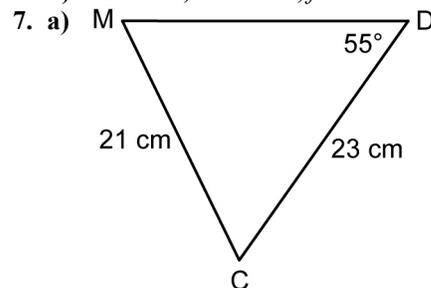
$\angle U = 39^\circ$

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

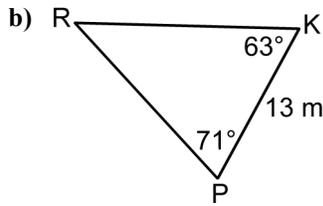
b) $\angle T = 75^\circ$, $s = 11$ m, $t = 14$ m

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

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



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

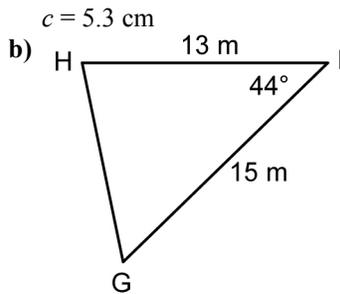
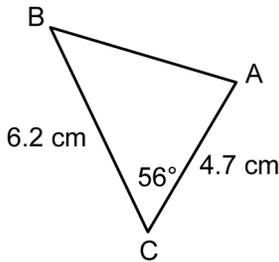


$\angle R = 46^\circ, k = 16 \text{ m}, p = 17 \text{ m}$

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

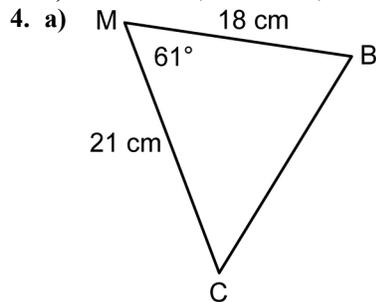
Section 8.2 Practice Master

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

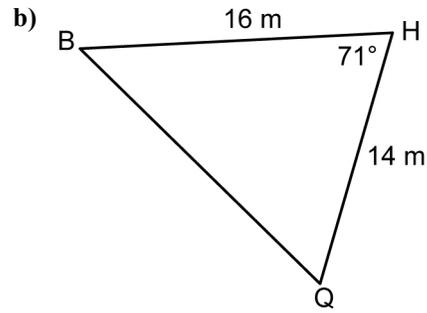


$i = 10.7 \text{ m}$

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



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

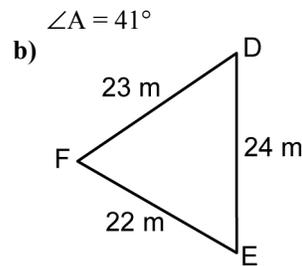
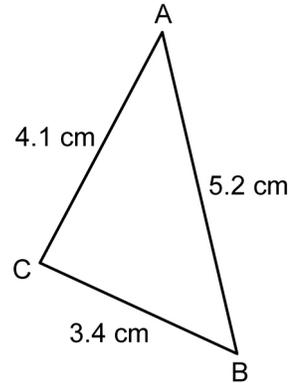


$h = 17.5 \text{ m}, \angle B = 49^\circ, \angle Q = 60^\circ$

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)

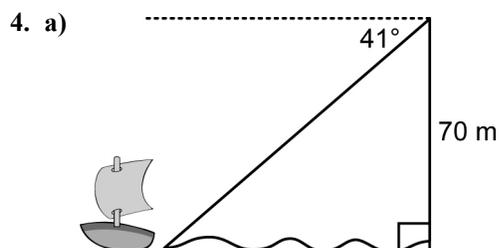


$\angle E = 60^\circ$

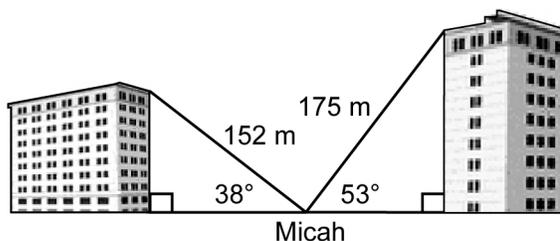
4. a) $\angle M = 50^\circ, \angle R = 57^\circ, \angle V = 73^\circ$
 b) $\angle S = 44^\circ, \angle P = 78^\circ, \angle T = 58^\circ$
 5. a) $\angle D = 43^\circ, \angle E = 57^\circ, \angle F = 80^\circ$
 b) $\angle P = 47^\circ, \angle Q = 58^\circ, \angle R = 75^\circ$
 6. a) Construct $\triangle DEF$. 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) $58^\circ, 58^\circ, 64^\circ$ b) 6 m^2

Section 8.4 Practice Master

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



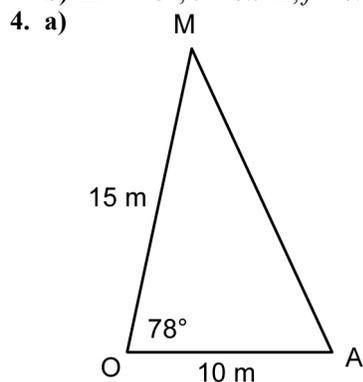
- b) 80.5 m
5. a)



- b) 230 m
c) height of first building 94 m, height of second building 140 m
d) distance from first building 120 m, distance from second building 105 m
6. 1.3 km

Chapter 8 Review

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

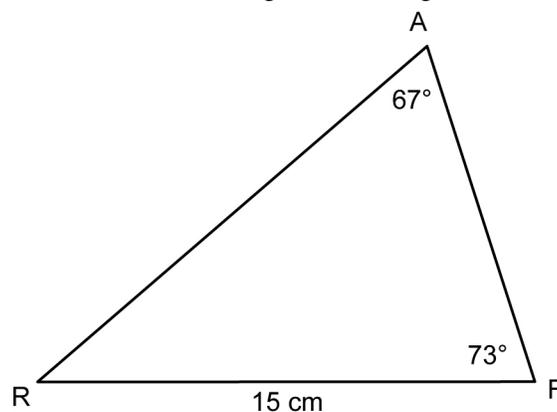


- b) 16.2 m
5. $d = 14.1$ cm
6. a) $b = 15.5$ m, $\angle T = 55.1^\circ$, $\angle L = 83.0^\circ$
b) $m = 14.7$ m, $\angle R = 41.9^\circ$, $\angle G = 60.2^\circ$
7. $\angle S = 50^\circ$

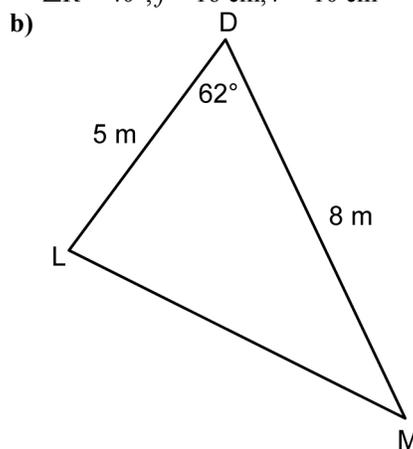
- a) $\angle J = 54.0^\circ$, $\angle N = 59.6^\circ$, $\angle G = 66.4^\circ$
b) $\angle B = 45.2^\circ$, $\angle X = 59.2^\circ$, $\angle R = 75.6^\circ$
- 5.4 m

Chapter 8 Practice Test

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



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

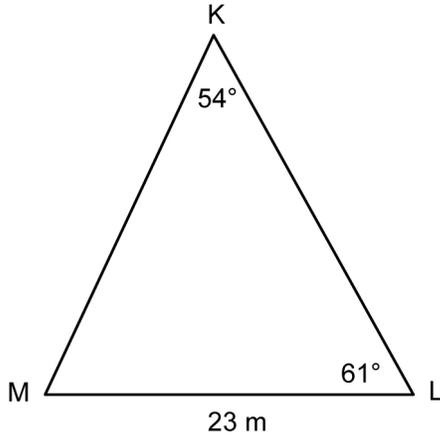


$d = 7$ m, $\angle M = 38^\circ$, $\angle L = 80^\circ$

10. 113 m

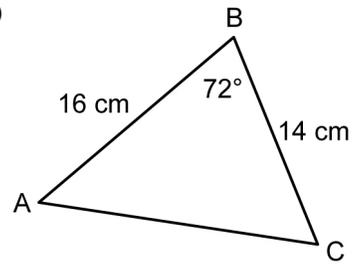
Chapter 8 Test

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