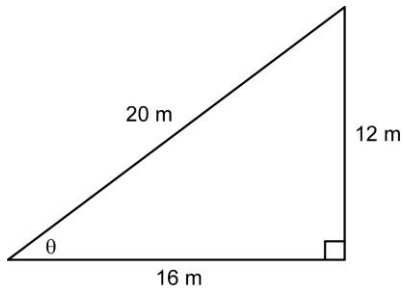


Chapter 7/8 Review

Section 1: Finding Trig Ratios

Find $\sin \theta$, $\cos \theta$, and $\tan \theta$ to the nearest hundredth for each triangle (don't solve for the angle, just find the ratio)

1)

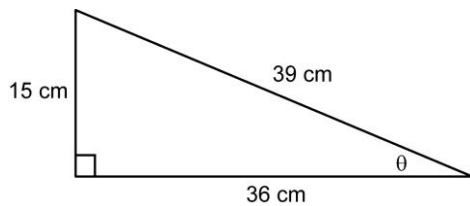


$\sin \theta$: _____

$\cos \theta$: _____

$\tan \theta$: _____

2)

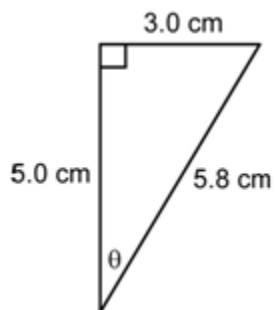


$\sin \theta$: _____

$\cos \theta$: _____

$\tan \theta$: _____

3)



$\sin \theta$: _____

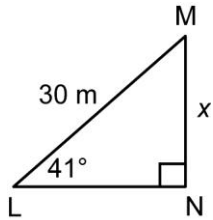
$\cos \theta$: _____

$\tan \theta$: _____

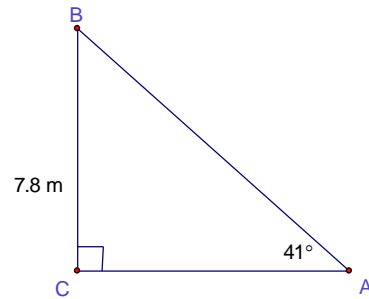
Section 2: Finding Side Lengths of Right Triangles

Find the value of x , to the nearest tenth

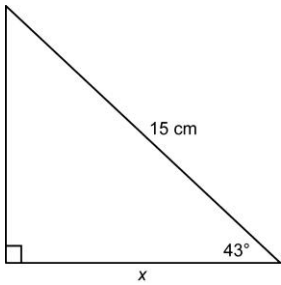
4)



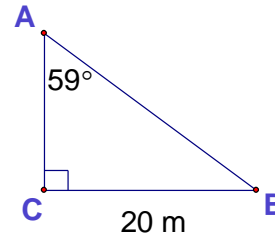
7) Find the length of side 'b'



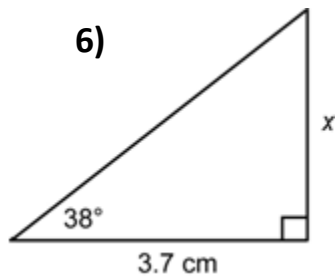
5)



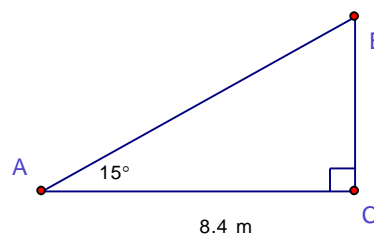
8) Find the length of side 'c'



6)



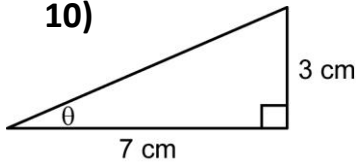
9) Find the length of side 'c'



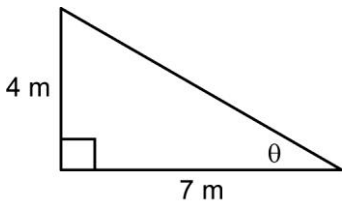
Section 3: Finding Angles of Right Triangles

Find the value of angle θ , to the nearest tenth, in the following triangles:

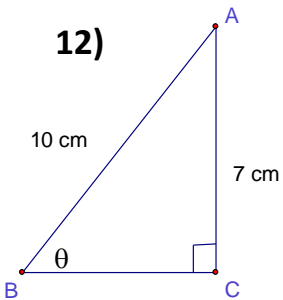
10)



11)

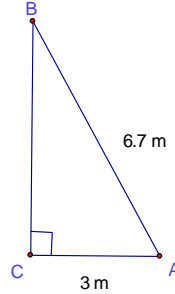


12)

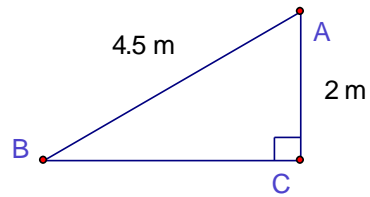


Find the measure of the following angles to the nearest tenth:

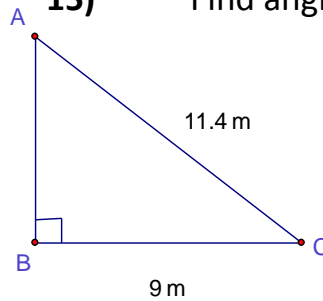
13) Find angle 'A'



14) Find angle 'B'

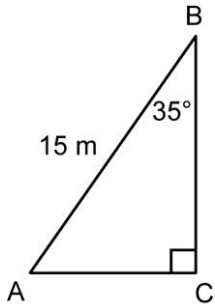


15) Find angle 'C'



Section 4: Solve the Following Right Triangles (round to nearest tenth)

16)

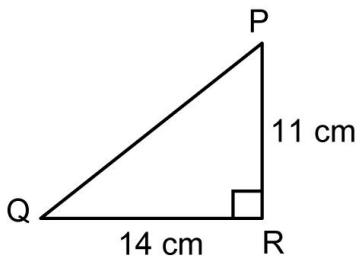


a= _____

b= _____

$\angle A =$ _____

17)



r= _____

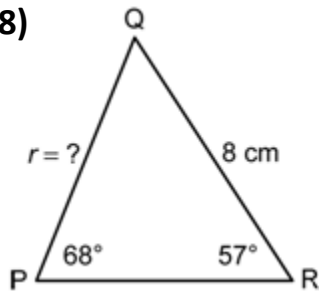
$\angle P =$ _____

$\angle Q =$ _____

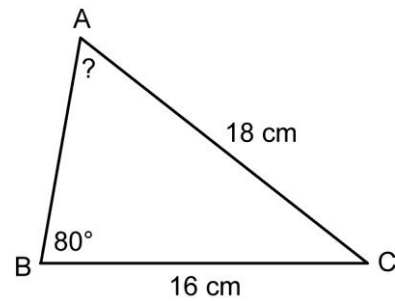
Section 5: Sine Law

Find the length of the indicated side or angle of each acute triangle to the nearest tenth

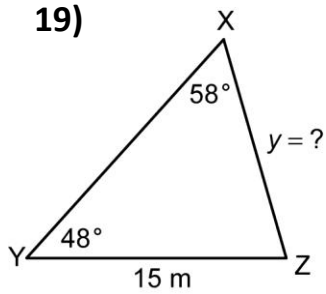
18)



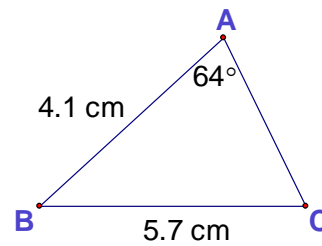
21)



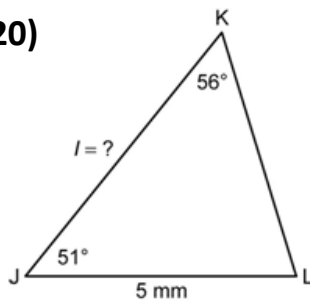
19)



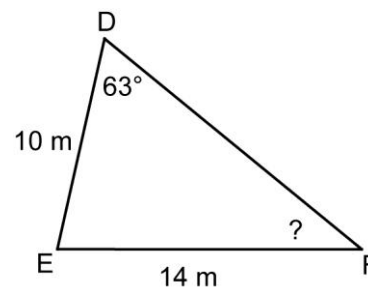
22) Find Angle C



20)



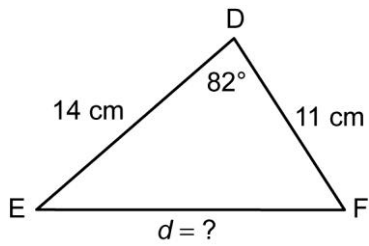
23)



Section 6: Cosine Law

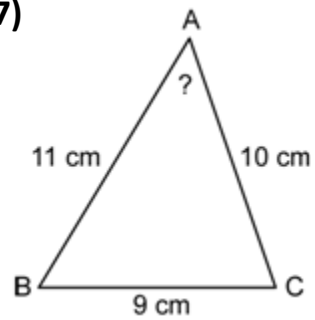
Find the length of the unknown side to the nearest tenth

24)

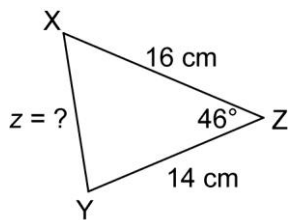


Find the measure of the unknown angle to the nearest tenth

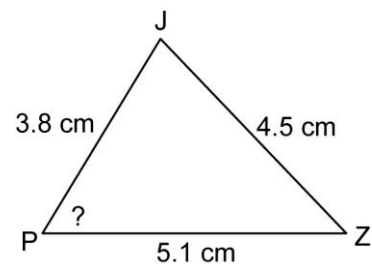
27)



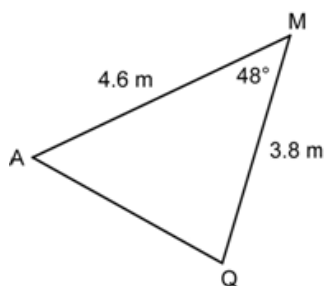
25)



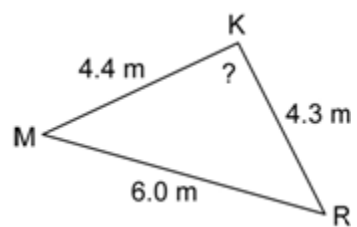
28)



26) Find the length of m

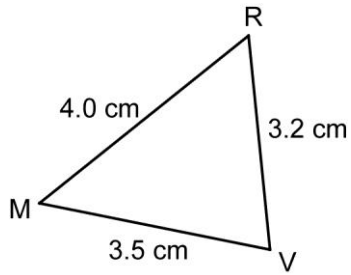


29)



Section 7: Solve Each Acute Triangle (round to the nearest tenth)

30)

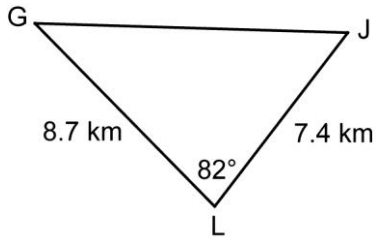


Angle R = _____

Angle M = _____

Angle V = _____

31)



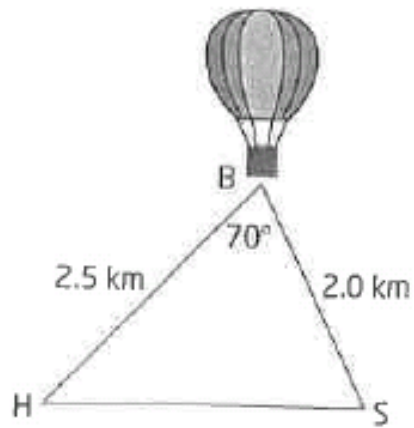
Angle G = _____

Angle J = _____

Side I = _____

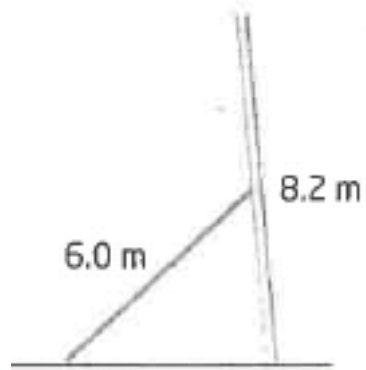
Section 8: Applications

- 32) Chandra is riding in a hot-air balloon and spots her house and her school. She estimates how far away they are from her, and the angle separating their lines of sight, as shown.



- a) How far apart are Chandra's home and school, to the nearest tenth of a kilometer?
- b) Chandra's mom is watching her from home, and her friends are watching from school. At what angle of elevation does Chandra appear to each of them, to the nearest degree.

- 33)** A leaning pole is braced at its midpoint as shown. The pole is 8.2 meters long and the bracing beam is 6.0 meters long. The foot of the beam is placed 5.0 meters from the base of the pole. Determine to the nearest degree:

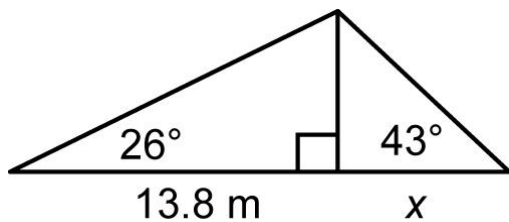


a) The angle the pole makes with the ground

b) The angle the beam makes with the ground

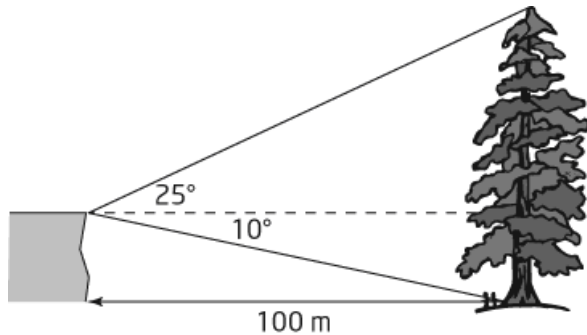
c) The angle the beam makes with the pole

34) Find the length of x , to the nearest tenth of a centimeter



35)

From a rock ledge the angle of elevation to the top of a tree is 25° . The angle of depression to the bottom of the tree is 10° .



a) Find the height of the rock ledge to the nearest tenth of a metre.

b) Find the height of the tree to the nearest tenth of a metre.

Answers:

- 1) 0.6, 0.8, 0.75
- 2) 0.38, 0.92, 0.42
- 3) 0.52, 0.86, 0.6
- 4) 19.7 m
- 5) 11.0 cm
- 6) 2.9 cm
- 7) 9 m
- 8) 23.3 m
- 9) 8.7 m
- 10) 23.2
- 11) 29.7
- 12) 44.4
- 13) 63.4
- 14) 26.4
- 15) 37.9
- 16) 12.3, 8.6, 55
- 17) 17.8, 51.8, 38.2
- 18) 7.2 cm
- 19) 13.1 m
- 20) 5.8 mm
- 21) 61.1
- 22) 40.3
- 23) 39.5
- 24) 16.6 cm
- 25) 11.9 cm
- 26) 3.5 m
- 27) 50.5
- 28) 58.6
- 29) 87.2
- 30) 56.9, 49.9, 73.2
- 31) 43.6, 54.4, 10.6
- 32) a) 2.6 b) 46.3, 64.6
- 33) a) 81.9 b) 42.6 c) 55.5
- 34) 7.2 m
- 35) a) 17.6 m b) 64.2 m