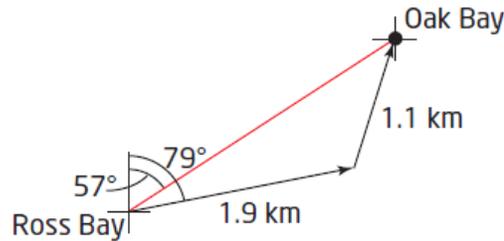
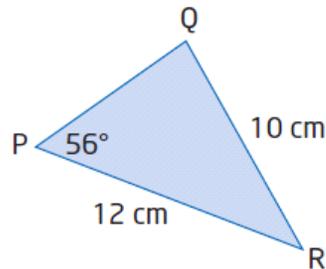


Chapter 2 Practice Test, pages 129 to 130

1. A
2. A
3. C
4. B
5. C
6. -6
7. a)

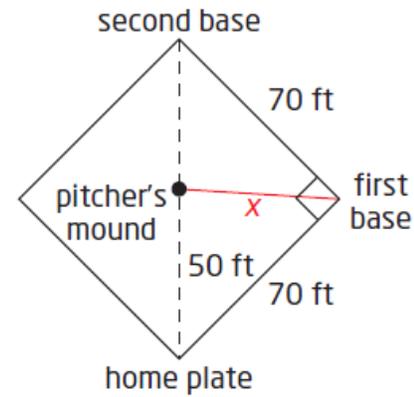


- b) 2.6 km
8. a) two
- b)  $\angle B = 53^\circ$ ,  $\angle C = 97^\circ$ ,  $c = 19.9$  or  $\angle B = 127^\circ$ ,  $\angle C = 23^\circ$ ,  $c = 7.8$
9.  $\angle R = 17^\circ$
10. a)



- b)  $\angle R = 40^\circ$ ,  $\angle Q = 84^\circ$ ,  $r = 7.8$  cm or  $\angle R = 28^\circ$ ,  $\angle Q = 96^\circ$ ,  $r = 5.7$  cm
11. 5.2 cm
12. a)  $44^\circ$       b)  $56^\circ$       c) 1.7 m
13. quadrant I:  $\theta = \theta_R$ , quadrant II:  $\theta = 180^\circ - \theta_R$ ,  
quadrant III:  $\theta = 180^\circ + \theta_R$ ,  
quadrant IV:  $\theta = 360^\circ - \theta_R$

14. a)



- b)  $a^2 + b^2 = c^2$   
 $70^2 + 70^2 = c^2$   
 $c = 99$

Second base to pitcher's mound is  $99 - 50$  or 49 ft.

Distance from first base to pitcher's mound is  $x^2 = 50^2 + 70^2 - 2(50)(70) \cos 45^\circ$  or 49.5 ft.

15. Use the sine law when the given information includes a known angle and a known opposite side, plus one other known side or angle. Use the cosine law when given oblique triangles with known SSS or SAS.
16. patio triangle:  $38^\circ$ ,  $25^\circ$ , 2.5 m; shrubs triangle:  $55^\circ$ , 2.7 m, 3.0 m
17. 3.1 km