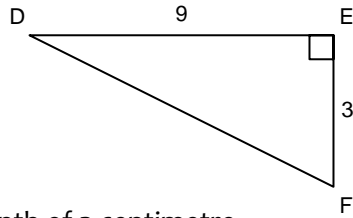


Chapter 3 Review

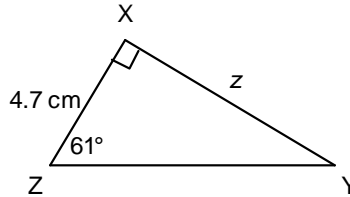
1. Determine the measure of $\angle D$ to the nearest tenth of a degree. 1. _____

- (A) 18.4°
- (B) 19.5°
- (C) 70.5°
- (D) 71.6°



2. Determine the length of side z to the nearest tenth of a centimetre. 2. _____

- (A) 9.7 cm
- (B) 2.6 cm
- (C) 5.4 cm
- (D) 8.5 cm

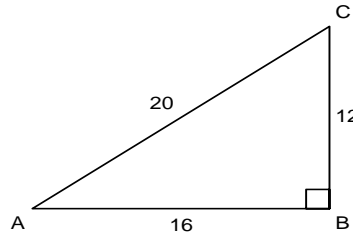


3. A flagpole casts a shadow that is 21 m long when the angle between the sun's rays and the ground is 48° . Determine the height of the flagpole, to the nearest metre. 3. _____

- A) 19 m
- B) 16 m
- C) 14 m
- D) 23 m

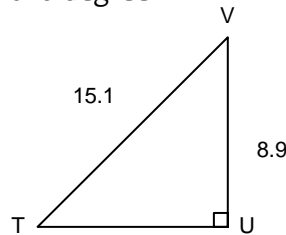
4. Determine $\sin A$ and $\cos A$ to the nearest tenth. 4. _____

- (A) $\sin A = 1.7$; $\cos A = 0.8$
- (B) $\sin A = 0.6$; $\cos A = 1.3$
- (C) $\sin A = 0.8$; $\cos A = 0.6$
- (D) $\sin A = 0.6$; $\cos A = 0.8$



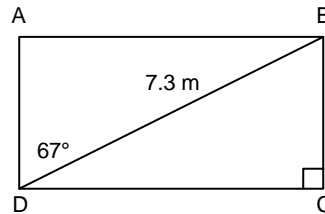
5. Determine the measure of $\angle V$ to the nearest tenth of a degree. 5. _____

- (A) 59.5
- (B) 36.1
- (C) 30.5
- (D) 53.9



6. Calculate the length of this rectangle to the nearest tenth of a metre. 6. _____

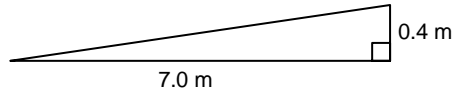
- (A) 7.9 m
- (B) 2.9 m
- (C) 6.7 m
- (D) 3.1 m



7. An architect draws this diagram of a wheelchair entrance ramp for a building. Determine the angle of inclination of the ramp to the nearest tenth of a degree.

7. _____

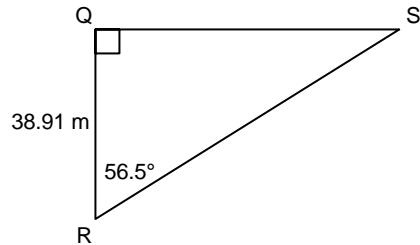
- (A) 86.7 m
 (B) 29.7 m
 (C) 3.3 m
 (D) 5.1 m



8. A surveyor made the measurements shown in the diagram. Determine the distance from R to S, to the nearest hundredth of a metre.

8. _____

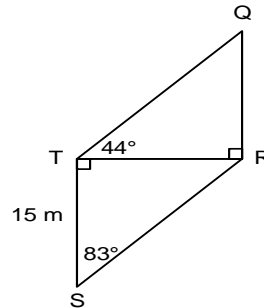
- (A) 46.66 m
 (B) 70.50 m
 (C) 25.75 m
 (D) 58.79 m



9. Determine the length of QR to the nearest metre.

9. _____

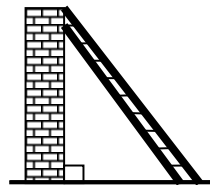
- (A) 85 m
 (B) 170 m
 (C) 127 m
 (D) 118 m



10. A ladder which is 6 m in length is resting against a house. The ladder makes an angle of 20° with the ground. How far from the base of the house is the ladder touching the ground?

10. _____

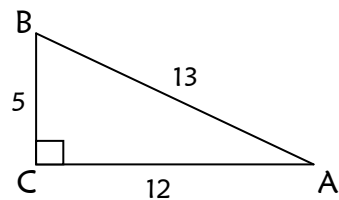
- (A) 2.1 m
 (B) 2.2 m
 (C) 5.6 m
 (D) 17.5 m



11. Which of the following is the correct ratio for $\cos A$?

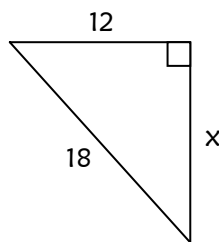
11. _____

- (A) $\frac{5}{12}$ (B) $\frac{5}{13}$
 (C) $\frac{12}{13}$ (D) $\frac{13}{12}$



12. Determine the value of x .

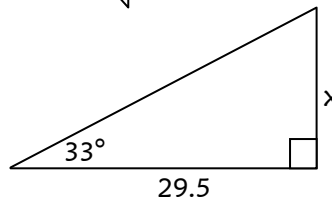
- (A) 6
- (B) 21.6
- (C) 3.5
- (D) 13.4



12. _____

13. What is the value of x in the diagram below?

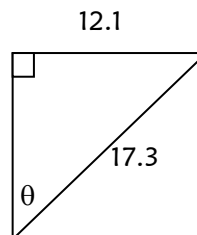
- (A) 45.4
- (B) 24.7
- (C) 19.2
- (D) 16.1



13. _____

14. What is the value of θ in the diagram below?

- (A) 35°
- (B) 46°
- (C) 0.77°
- (D) 44°



14. _____

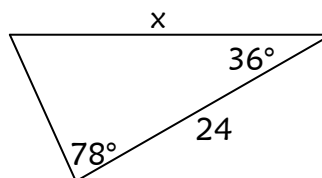
15. If a triangle has sides of lengths a , b and c , then according to the Law of Sines, what does a equal?

- (A) $\frac{c \sin C}{\sin A}$
- (B) $\frac{c \sin A}{\sin C}$
- (C) $\frac{c \sin B}{\sin A}$
- (D) $\frac{\sin C}{a \sin A}$

15. _____

16. Find the value of x in the diagram below.

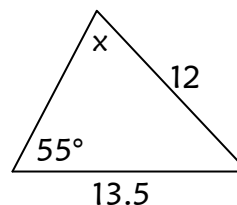
- (A) 25.7
- (B) 39.9
- (C) 12.2
- (D) 24



16. _____

17. Find the measure of the missing angle to the nearest degree.

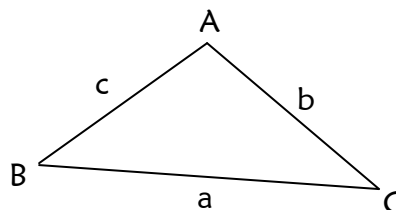
- (A) 67°
- (B) 23°
- (C) 50°
- (D) 35°



17. _____

18. Which of the following would be the correct formula to use for finding the length of AB?

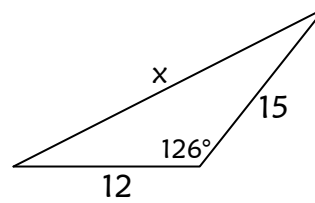
- (A) $b^2 = a^2 + c^2 - 2ac \cos B$
- (B) $c^2 = a^2 + b^2 + 2ab \cos C$
- (C) $c^2 = a^2 + b^2 - 2ab \cos C$
- (D) $a^2 = b^2 + c^2 - 2bc \cos A$



18. _____

19. Find the value of x in the diagram below.

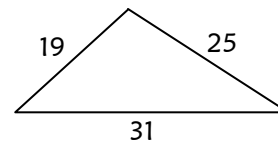
- (A) 12.5
- (B) 24.1
- (C) 19.2
- (D) 8.8



19. _____

20. Find the measure of the **smallest** angle in the diagram below.

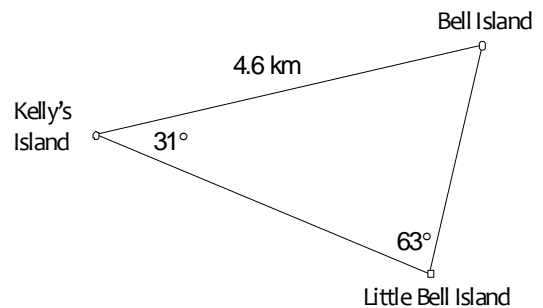
- (A) 88°
- (B) 54°
- (C) 38°
- (D) 36°



20. _____

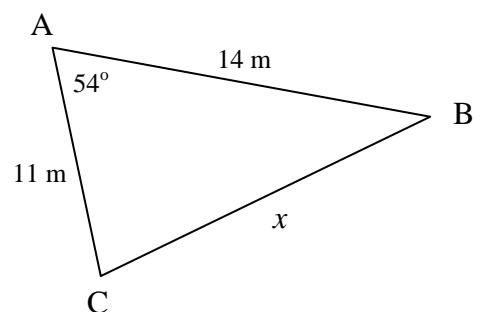
21. The straight-line distance between Kelly's Island and Bell Island is 4.6 km. Bonita and John want to take their boat from Kelly's Island to the tip of Little Bell Island. How far will they travel in total? Give your answer to the nearest tenth of a metre.

(4 marks)



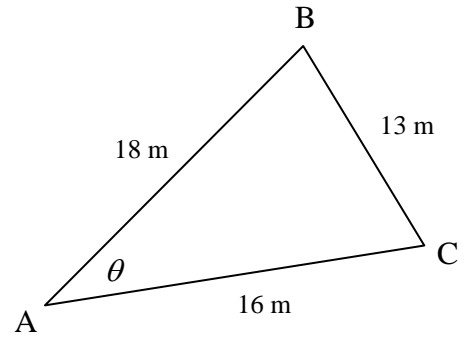
22. Find the missing value of x in the following triangle to the nearest meter.

(4 marks)



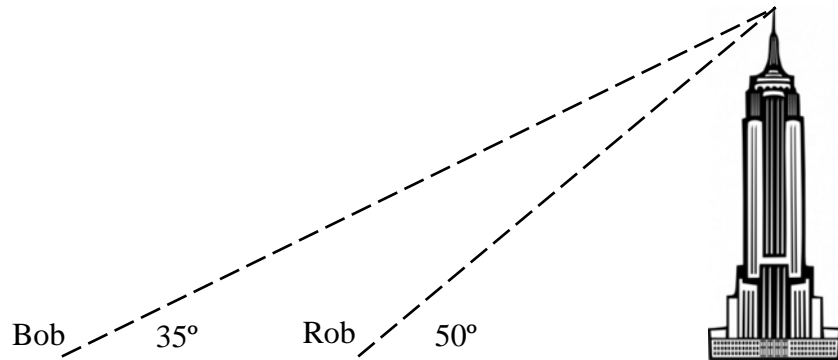
23. Find the measure of θ to the nearest degree in the following triangle.

(4 marks)



24. For $\triangle BTY$, $\angle B = 55^\circ$, $b = 15$, and $y = 18$. Sketch the triangle and find $\angle T$ to the nearest degree.

25. Bob and Rob are looking at the top of a building. If Bob and Rob are 100 m apart, how tall is the building? Round your answer to the nearest tenth of a metre.



26. In triangle PQR , $\angle P = 55^\circ$, $\angle Q = 77^\circ$, and $p = 4.5$ cm. Solve the triangle.