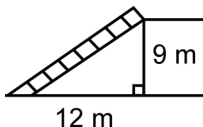
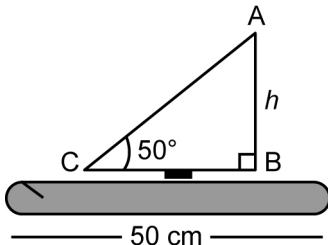


Chapter 2 Test

Multiple Choice

Choose the correct response to each question.

- $\sin 15^\circ$ is
 A 0.9659 B 0.2588
 C 0.2679 D undefined
- $\cos 32^\circ$ is
 A undefined B 0.8480
 C 0.5299 D 0.6248
- $\tan 46^\circ$ is
 A 1.0355 B 0.7193
 C undefined D 0.6946
- If $\sin A = 0.6561$, then $\angle A$ is approximately
 A 49° B 41°
 C 33° D 0.011
- If $\cos A = 0.8988$, then $\angle A$ is approximately
 A 42° B 64°
 C 26° D 0.9999
- A slide in a park has a vertical height of 9 m. The horizontal distance covered by the slide is 12 m. The length of slide is


 A 30 m B 42 m
 C 21 m D 15 m
- From a point 10.6 m from the base of a school, the angle of elevation to the top of the school is 50° . How tall is the school?
 A 12.63 m B 1.19 m
 C 8.12 m D 6.81 m
- Sue's bedroom window is 7 m above the ground. She looks down at an angle of depression of 30° and she can see her mailbox. What is the horizontal distance from the house to the mailbox?
 A 12.12 m B 4.04 m
 C 3.5 m D 6.06 m
- Carrie's pet dog is lying on the ground 1.25 m away from her. The angle of elevation from the dog to Carrie's head is 49° . How tall is Carrie?
 A 0.82 m B 0.94 m
 C 1.30 m D 1.43 m
- Matthieu's toy boat has a base 50 cm long. The horizontal length of the sail is half the length of the base of the boat. The height of the sail is


 A 59.59 cm B 29.79 cm
 C 38.30 cm D 32.14 cm

Short Response

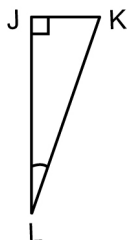
- Draw $\triangle ABC$ with $\angle B = 90^\circ$, $AB = 15$ cm, and $BC = 15$ cm.
 - Measure the length of AC and mark it on your triangle.
 - Write the ratio comparing the length of the side adjacent to $\angle C$ to the length of the hypotenuse. Write the ratio as a decimal, rounded to one decimal place.

Name: _____

Date: _____

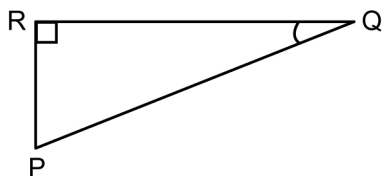
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12. In $\triangle JKL$ below, JK is 5 cm, JL is 18 cm, and KL is 18.68 cm.

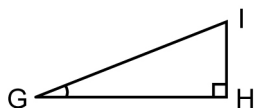


- Write the ratio comparing the length of the side opposite $\angle L$ to the length of the hypotenuse. Write the ratio as a decimal, rounded to two decimal places.
- Write the ratio comparing the length of the side adjacent to $\angle L$ to the length of the hypotenuse. Write the ratio as a decimal, rounded to two decimal places.

13. In $\triangle PQR$ below, PQ is 50 cm and $\angle Q$ is 48° . Determine the length of RP to the nearest tenth of a centimetre.

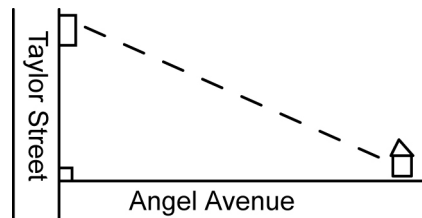


14. In $\triangle GHI$ below, GI is 25 m and $\angle G$ is 38° . Determine the length of GH to the nearest tenth of a metre.

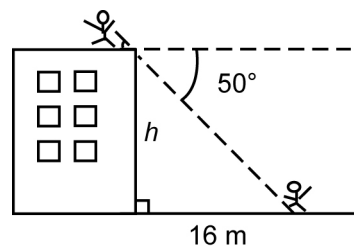


Extended Response

15. Tomaso lives on Angel Avenue, which is 2000 m long. His friend's house is on Taylor Street, which is 1500 m long.



- Determine the distance that Tomaso travels if he goes along both streets from his house to his friend's house.
 - What is the distance that Tomaso travels if he takes a diagonal shortcut?
 - How much shorter is the shortcut?
16. Teresa is at the top of her apartment building and is looking down at her friend Karin at a 50° angle of depression. The horizontal distance from the base of the building to Karin is 16 m. Determine the vertical height of the building.



17. A car is parked on the street 28 m from the base of the apartment building on the right. The angle of elevation from the truck to the top of the building is 40° . The parked car is 42 m from the base of the apartment building on the left. The angle of elevation from the truck to the top of that building is 30° . Which building is taller? Explain.

