

# Practice: The Sine and Cosine Ratios

1. Use a scientific calculator to find each value to four decimal places.

a)  $\sin 65^\circ$                       b)  $\sin 48^\circ$   
 c)  $\sin 56^\circ$                       d)  $\sin 20^\circ$   
 e)  $\sin 34^\circ$                       f)  $\sin 80^\circ$

2. Use a scientific calculator to find each value to four decimal places.

a)  $\cos 35^\circ$                       b)  $\cos 58^\circ$   
 c)  $\cos 26^\circ$                       d)  $\cos 40^\circ$   
 e)  $\cos 74^\circ$                       f)  $\cos 60^\circ$

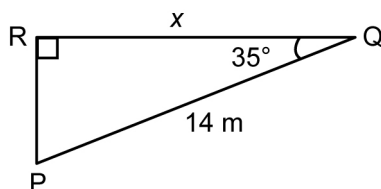
3. Use a scientific calculator to find the measure of each  $\angle A$  to the nearest degree.

a)  $\sin A = 0.8192$                       b)  $\sin A = 0.9962$   
 c)  $\sin A = 0.9744$                       d)  $\sin A = 0.9135$

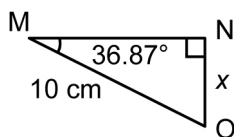
4. Use a scientific calculator to find the measure of each  $\angle B$  to the nearest degree.

a)  $\cos B = 0.9063$                       b)  $\cos B = 0.8480$   
 c)  $\cos B = 0.4384$                       d)  $\cos B = 0.3420$

5. Determine the length of  $x$  to the nearest tenth of a metre.

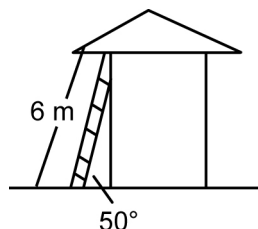


6. Determine the length of  $x$  to the nearest tenth of a centimetre.

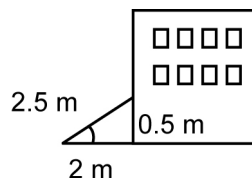


7. In  $\triangle ABC$ ,  $\angle B = 90^\circ$ ,  $\angle A = 38^\circ$ , and  $AB = 20\text{ mm}$ . Find the length of  $AC$  to the nearest tenth of a millimetre.

8. Jacob leans a 6-m long ladder against the side of a house. The ladder forms a  $50^\circ$  angle with the ground. How high up the wall does the ladder reach?



9. A wheelchair ramp is 2.5 m. The horizontal distance from the end of the ramp to the building is 2 m. The top end of the ramp is 0.5 m above the ground.



What angle does the ramp make with the ground?