ASSIGNMENT: Cosine Ratio

Name: _____

Date: _____
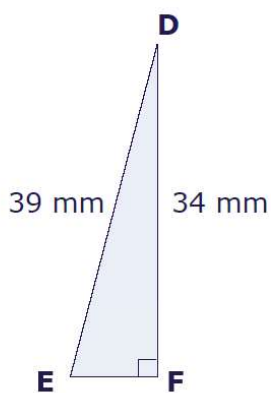
Calculate the cosine of the following angles to two decimal places.

1.   cos 54° =

2.   cos 78° =
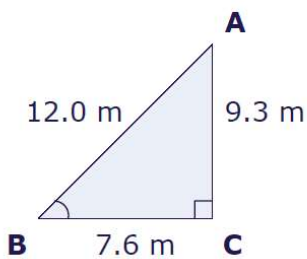
Find ∠ T to the nearest degree.
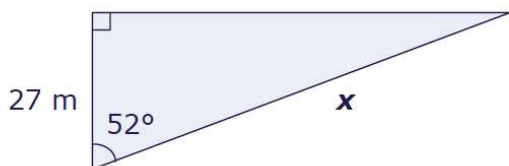
3.   cos T = 0.683

4.   cos T = 7/9

5. Using the following triangle, calculate cos **D** to two decimal places.

6. Calculate ∠ **B** and cos **B** for the following triangle. Round the angle measurement to the nearest degree and calculate the sin to two decimal places.


7. Find the measurement of the missing side of the triangle to the nearest tenth of a metre.
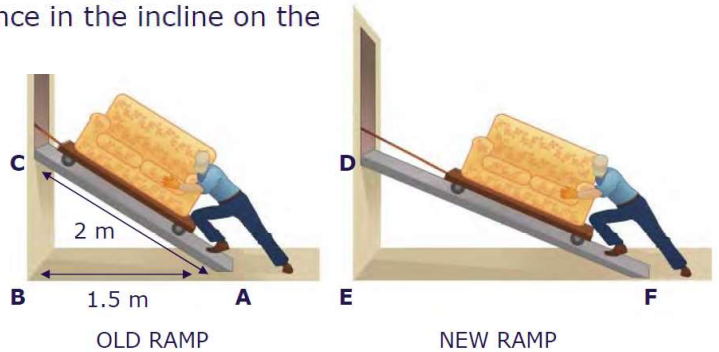
8. If a right triangle has a hypotenuse that is 18 cm long, how long is the side adjacent to the 17° angle (nearest tenth of a centimetre)?

9. A family built a patio on the second storey of their home. They wanted to be able to access their backyard from this patio, so they built stairs from the patio to the grass. The incline of their staircase from the ground to the patio was 56° and the height of the staircase from the patio to the ground was 5 m. To the nearest tenth, calculate the length of the staircase.

5 m

x

56°
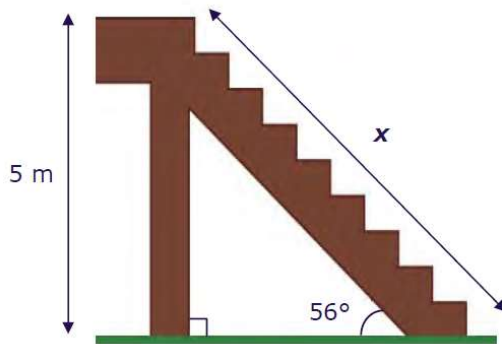
10. A furniture company purchased a new warehouse loading ramp because the employees were having a hard time carrying the furniture the old ramp due to the steep incline. The old ramp was 2 meters lon and the distance from the base of the ramp, where the employee is standing, to the building wall is **1.5m. The new ramp is 1 meter** longer than the old ramp. What is the difference in the incline on the new and old ramp?

C

2 m

B   1.5 m   A

OLD RAMP

D

E   F

NEW RAMP

1. 0.59
2. 0.21
3. 47°
4. 39°
5. 0.87
6. cos B = 0.63
∠B = 51°
7. 43.8 m
8. 17.2 cm
9. 6.0 m
10. 15°

4 – Triangles