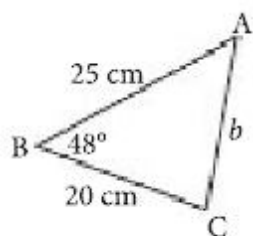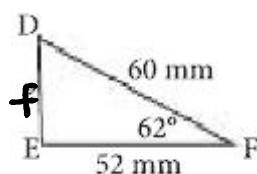## DAY 4 – The Cosine Law

1. Find the measure of the unknown side.
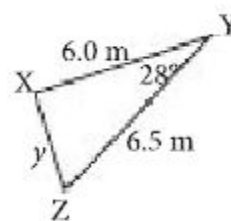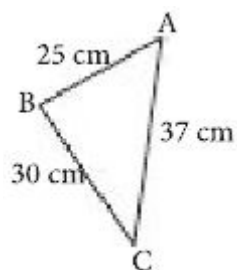
a.

25 cm

B 48°
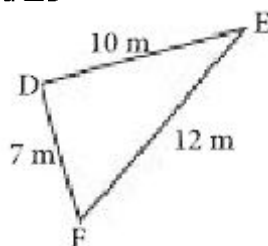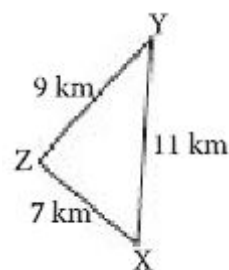
20 cm

A

b

C

b.

D

60 mm

62°

E 52 mm F

c.

6.0 m

X

28°

Y

y

6.5 m

Z

2. Find the measure of the unknown angle indicated.

a. Find ∠A

25 cm

B

30 cm

A

37 cm

C

b. Find ∠D

10 m

D

7 m

E

12 m

F

c. Find ∠X

Y

9 km

Z

7 km

11 km

X

3. A motocross ramp is to be built for an upcoming race. the measures for the sides of the ramp are as shown. Calculate the angle of inclination of the ramp to the nearest degree.
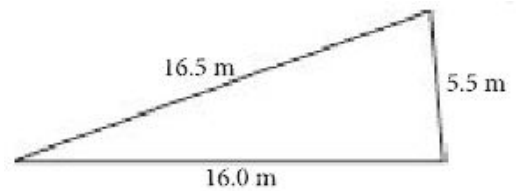
4. An intersection between two country roads makes an angle of 68°. Along one road, 5 km from the intersection, is a dairy farm. Along the other road, 7 km from the intersection, is a poultry farm. How far apart are the two farms? Round the answer to the nearest tenth of a kilometre.

5. A triangle is built using three poles with lengths 17 m, 15 m and 9 m. What is the measure of the largest angle in the triangle?