Name:_____ Date:_____ Block: _____

FOM 10 – Chapter 8 Practice Test

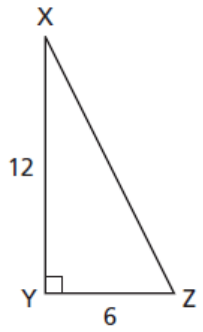
Make sure your calculator is in DEGREE mode! $S\frac{O}{H}C\frac{A}{H}T\frac{O}{A}$ $a^2 + b^2 = c^2$

Each question is written response. Show all of your work.

1. Find each ratio to four decimal places using a calculator: (0.5 marks each)
   a) $\sin 37° =$ _____
   b) $\cos 68° =$ _____
   c) $\tan 18° =$ _____

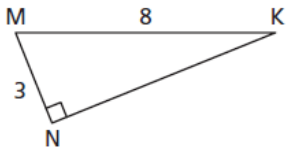
2. Find the measure of each angle θ to one decimal place (0.5 marks each):
   a) $\sin\theta = 0.5428$ $\theta =$ _____
   b) $\cos\theta = 0.6367$ $\theta =$ _____
   c) $\tan\theta = 2.1476$ $\theta =$ _____

3. Use Pythagoras to find the measure of the missing side to one decimal place. (2 marks each)
   a)



$y =$ _____

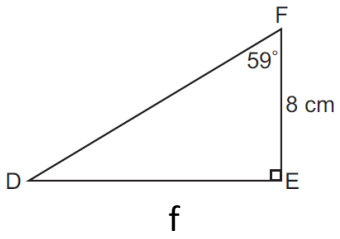
   b)



$m =$ _____

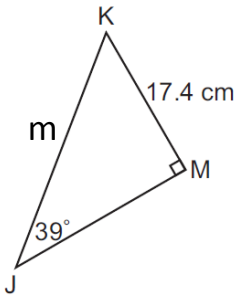
4. Determine the measure of the indicated **side** in each triangle. **Round to the nearest tenth.** (2 marks each)

a)



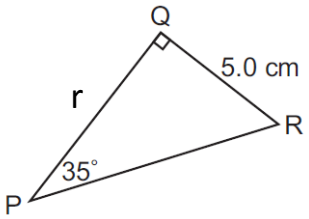
$f =$ _____

b)



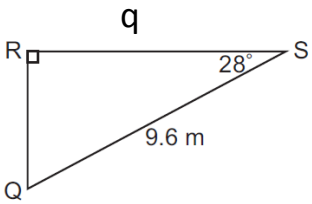
$m =$ _____

c)



$r =$ _____

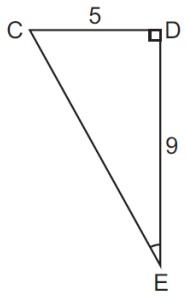
d)



$q =$ _____

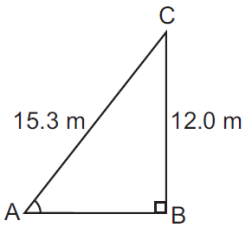
5. Determine the measure of the indicated **angle** in each triangle. **Round to the nearest tenth.** (2 marks each)

a)



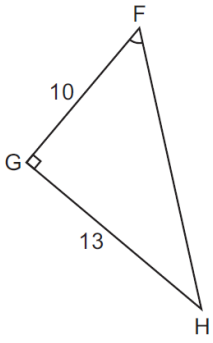
$E =$ _____

b)



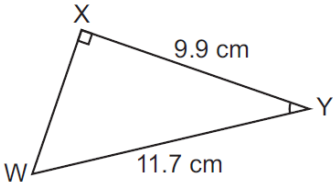
$A =$ _____

c)



$F =$ _____

d)

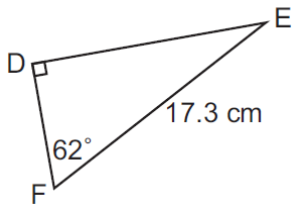


$Y =$ _____

6. **Solve** the following triangles to one decimal place: (3 marks each)

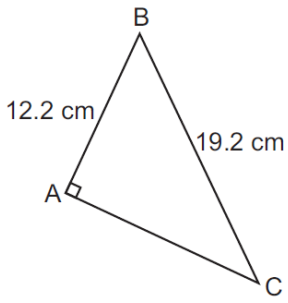
a)

<D = 90°	d = 17.3cm
<E = _____	e = _____
<F = 62°	f = _____



b)

<A = 90°	a = 19.2cm
<B = _____	b = _____
<C = _____	c = 12.2cm



7. A ladder leans against a wall. The base of the ladder is on level ground 3.6m from the wall. The angle between the ladder and the ground is 72°. How far up the wall does the ladder reach (to the nearest tenth of a metre)? (2 marks)

Sentence answer:

8. A rope that anchors a hot air balloon to the ground is 117m long. The balloon is 79m above the ground. What is the angle of elevation of the rope (to the nearest tenth of a degree)? (2 marks)

Sentence answer:

9. A passenger in an airplane flying at an altitude of 13 km spots two cities directly to the right. The angle of depression to the towns are 37^{o} and 54^{o}. How far is it between the two cities (to the nearest tenth of a km)? (3 marks)

Sentence answer:

10. An isosceles triangle has a base of 28 in. If the two equal sides meet at an angle of 34^{o}, how long are they (to the nearest inch)? (3 marks)

Sentence answer: