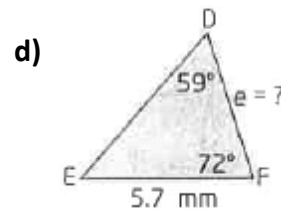
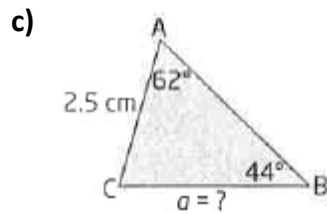
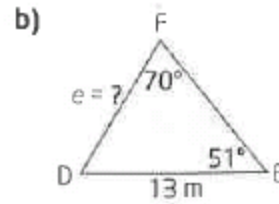
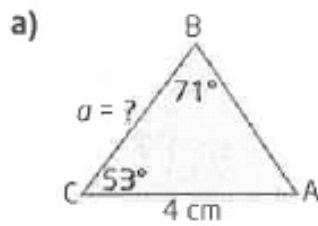
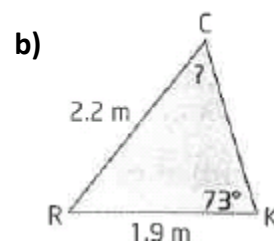
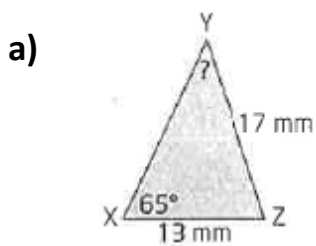


8.1 Sine Law Homework

1. Find the length of the indicated side for each triangle



2. Find the measure of the indicated angle in each triangle

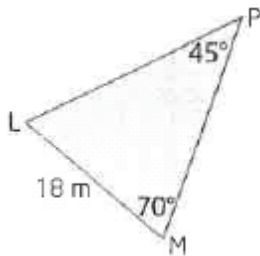


- c) In acute $\triangle GHK$, $\angle G = 47^\circ$, $h = 5$ cm, and $g = 4$ cm. Find $\angle H$.

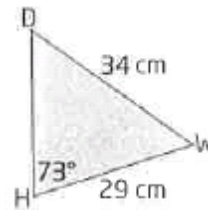
- d) In acute $\triangle RST$, $\angle S = 72^\circ$, $t = 1.5$ m, and $s = 1.8$ m. Find $\angle T$.

3. Solve each triangle

a)

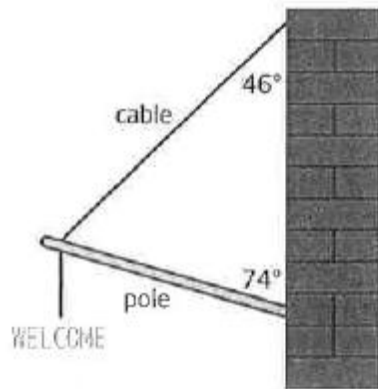


b)



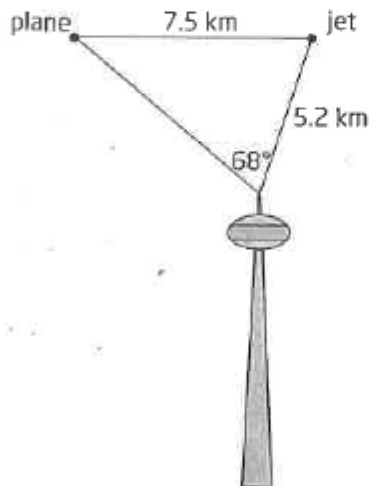
- c) In acute $\triangle AKR$, $k = 15$ mm, $r = 13$ mm, and $\angle K = 68^\circ$.

4. A sign is supported by a pole and a cable, as shown. The cable is attached to the wall 2.2 m above the base of the pole.



Find the length of the pole and the cable:

5. A small commercial plane and a jet airliner are 7.5 km from each other, at the same altitude. From an observation tower, the two aircraft are separated by an angle of 68° . If the jet airliner is 5.2 km from the observation tower, how far is the commercial plane from the observation tower, to the nearest tenth of a kilometre?



Answers:

1) a) 4cm b) 11m c) 3.2cm d) 5.0mm

2) a) 44 b) 56 c) 66 d) 52

3) a) L=65 l=23m m=24m b) D=55 W=52 w=28cm c) R=53 A=59 a=14mm

4) a) pole = 1.8m cable=2.4m

5) 7.7 km