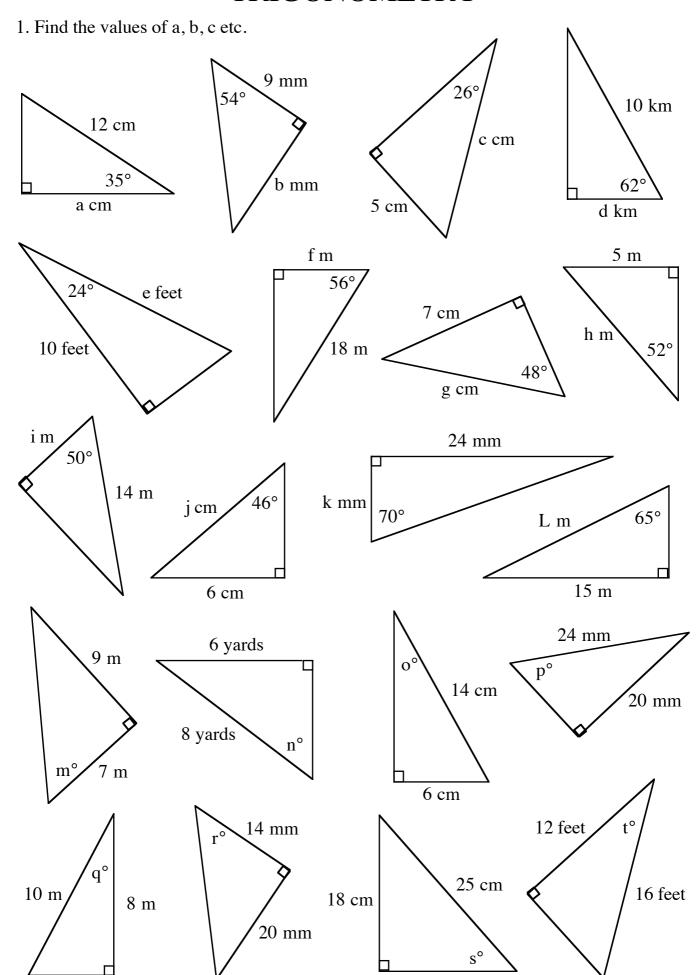
TRIGONOMETRY

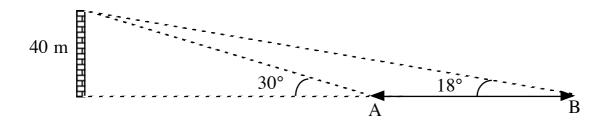


2. Two observers are at positions A and B.

They each measure the angle of elevation of a 40 metre high chimney.

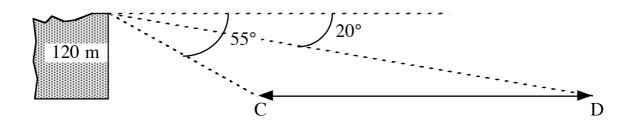
The angles of elevation are 30° and 18° as shown.

Find the distance AB.



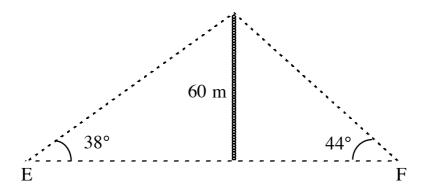
3. From the top of a 120 metre high cliff two boats are observed at positions C and D. The angles of depression are 55° and 20° as shown.

Find the distance CD.



4. Two observers are at positions E and F.
They each measure the angle of elevation of a 60 metre mast.
The angles of elevation are 38° and 44° as shown.

Find the distance EF.



ANSWERS

1.
$$a = 9.8$$

$$b = 12.4$$

$$c = 11.4$$

$$d = 4.7$$

$$e = 10.9$$

$$f = 10.1$$

$$g = 9.4$$

$$h = 6.3$$

$$i = 9.0$$

$$j = 8.3$$

$$k = 8.7$$

$$L = 16.6$$

$$m = 52 \cdot 1$$

$$n=48\!\cdot\!6$$

$$o = 25 \cdot 4$$

$$p = 56.4$$

$$q = 36.9$$

$$r = 55.0$$

$$s = 46.1$$

$$t = 41.4$$

2.
$$AB = 53.8 \text{ m}$$

3.
$$CD = 245.7 \text{ m}$$

4.
$$EF = 138.9 \text{ m}$$