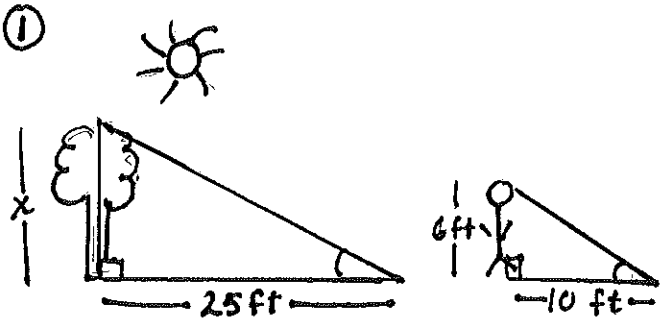
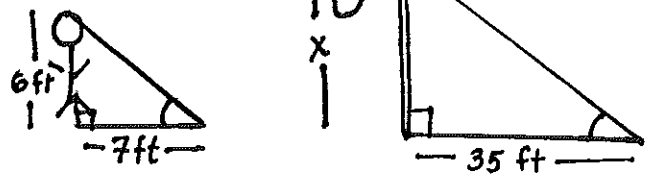
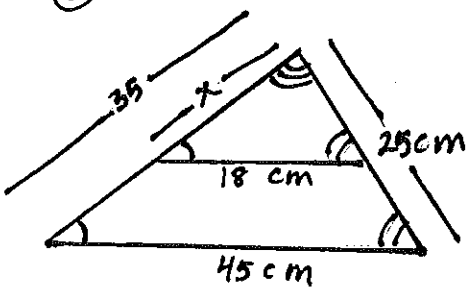
INDIRECT MEASUREMENT

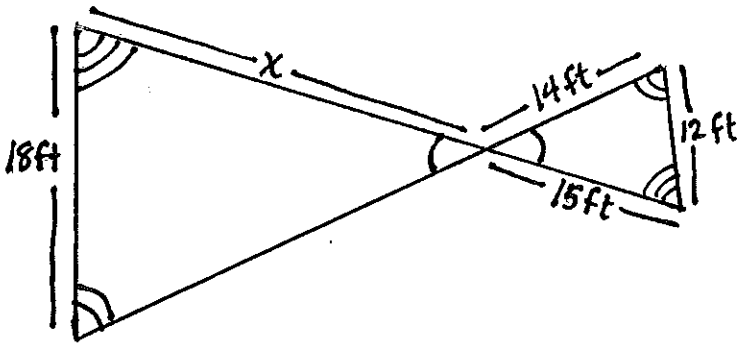
Write a proportion to find each missing measure.

Tier A: # 1-6
Tier B: # 4-9
Tier C: # 7-12
Challenge for all: # 13

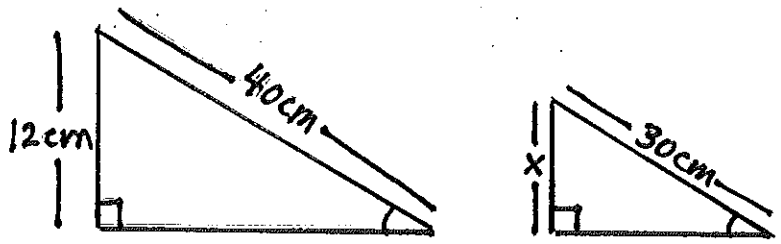
① 

② 

③ 

④ 

(5)



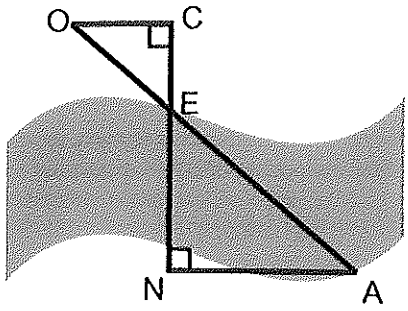
6) A man who is 6 feet tall has a shadow that is 17 feet long. What is the length of the shadow of a man who is 5 feet tall? Draw a picture and show a proportion.

7) A mailbox is 4 feet tall and has a shadow that is 7 feet long. What is the length of the shadow of a pole that is 25 feet? Draw a picture and show a proportion.

8) A pole is 10 feet tall and has a shadow that is 5 feet long. What is the length of the shadow of a pole that is 25 feet tall? Draw a picture and show a proportion.

9) A boy who is 4 feet tall has a shadow that is 9 feet long. What is the length of the shadow of a boy who is 6 feet tall? Draw a picture and show a proportion.

10) Use the picture to the right and determine the distance between C and N, if OC = 72 ft., CE = 65 ft,., and NA = 14,400 ft.



11) Thomas, who is 4 ft. 9 inches tall is casting a 6 ft. shadow. A nearby building is casting a 42 ft. shadow. How tall is the building?

12) The sides of a triangle are 5, 6 and 10 inches. Find the length of the longest side of a similar triangle whose shortest side is 15 inches.

13) In the diagram below, find DE.