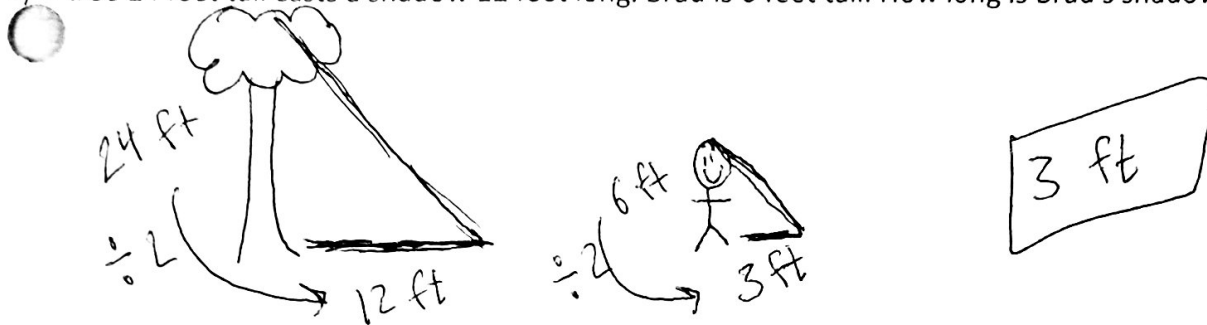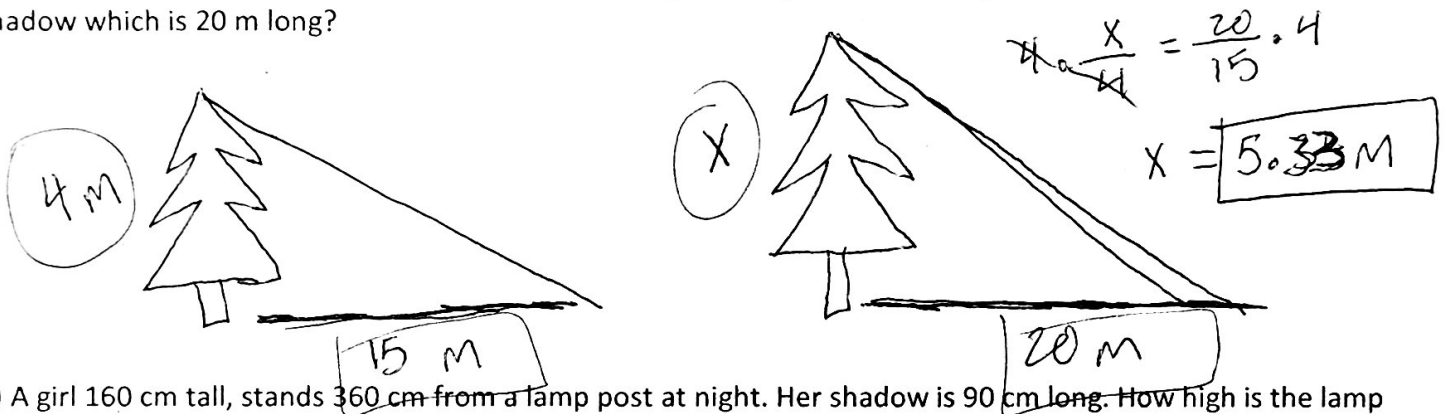# 10.5 Application

1) A tree 24 feet tall casts a shadow 12 feet long. Brad is 6 feet tall. How long is Brad's shadow?

24 ft
÷2
12 ft

6 ft
÷2
3 ft

3 ft

2) A tree with a height of 4m casts a shadow 15 m long on the ground. How high is another tree that casts a shadow which is 20 m long?

4 m

15 M

X

$4 \cdot \frac{x}{4} = \frac{20}{15} \cdot 4$

$x = 5.33 M$

20 M

3) A girl 160 cm tall, stands 360 cm from a lamp post at night. Her shadow is 90 cm long. How high is the lamp post?

160 cm
90 cm
X
360 cm

160
90
X
450

$160 \cdot \frac{x}{160} = \frac{450}{90} \cdot 160$

$x = 800 CM$
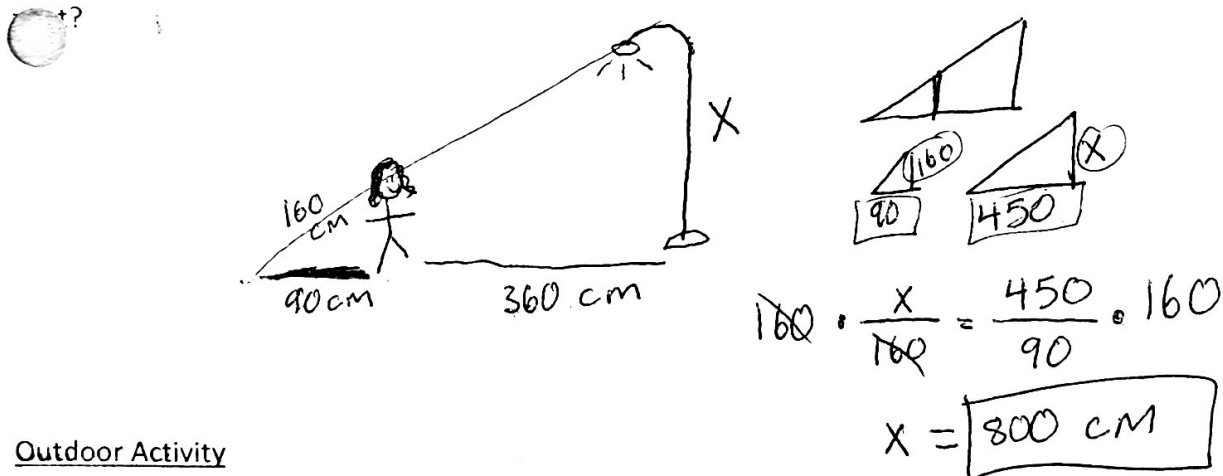
Outdoor Activity

My height:

Length of my shadow:

Object:

Length of object's shadow:

Drawing