ASSIGNMENT

"TRIGONOMETRY"

HEIGHT
&
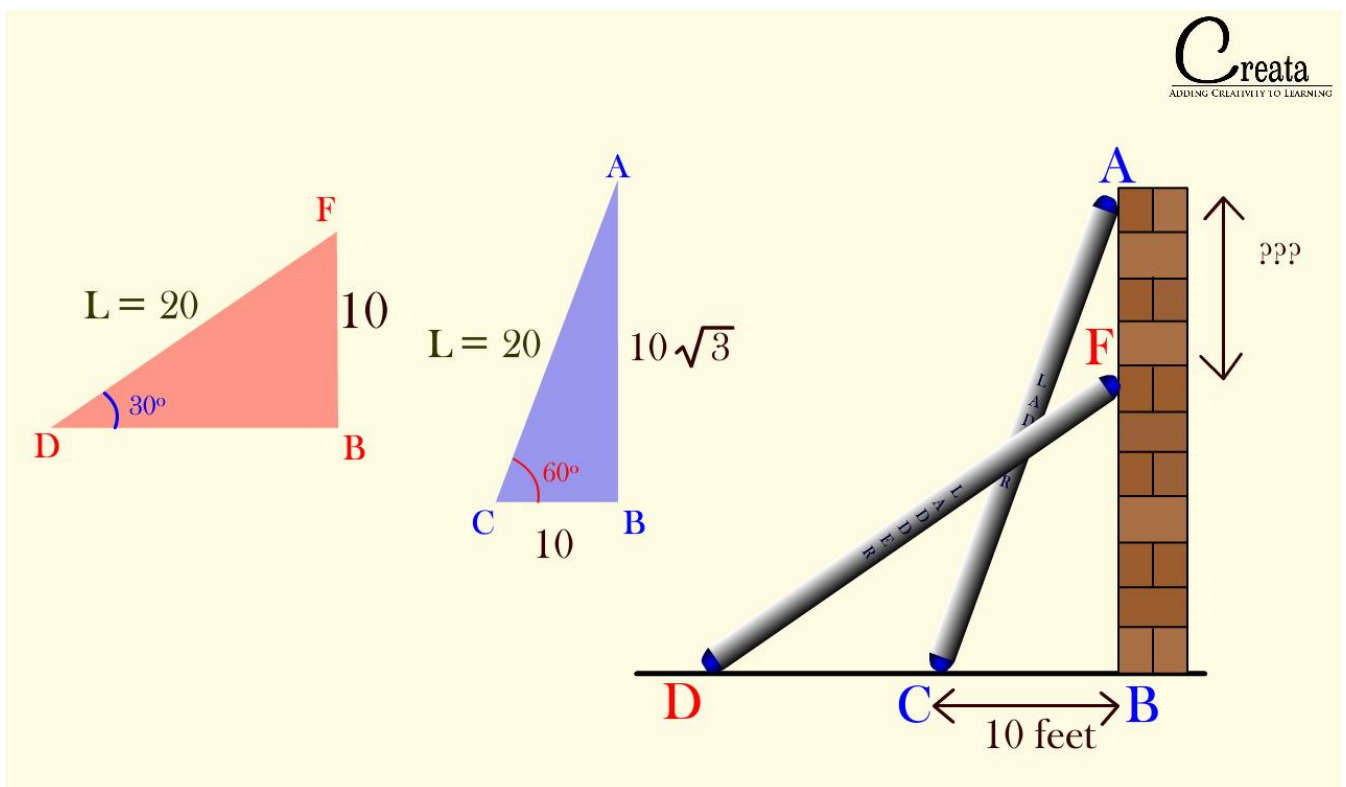# DISTANCE

SOLUTIONS

NAME: _____

Email ID _____

LOCATION_____

☐ SCHOOL   ☐ COLLEGE   ☐ COMPETITIVE EXAM _____

Q1) A ladder is placed along a wall such that its upper end is touching the top of the wall. The foot of the ladder is 10 ft away from the wall and the ladder is making an angle of 60° with the ground. When a man starts climbing on it, it slips and now ladder makes an angle of 30° with ground. How much did the ladder slip on the wall?

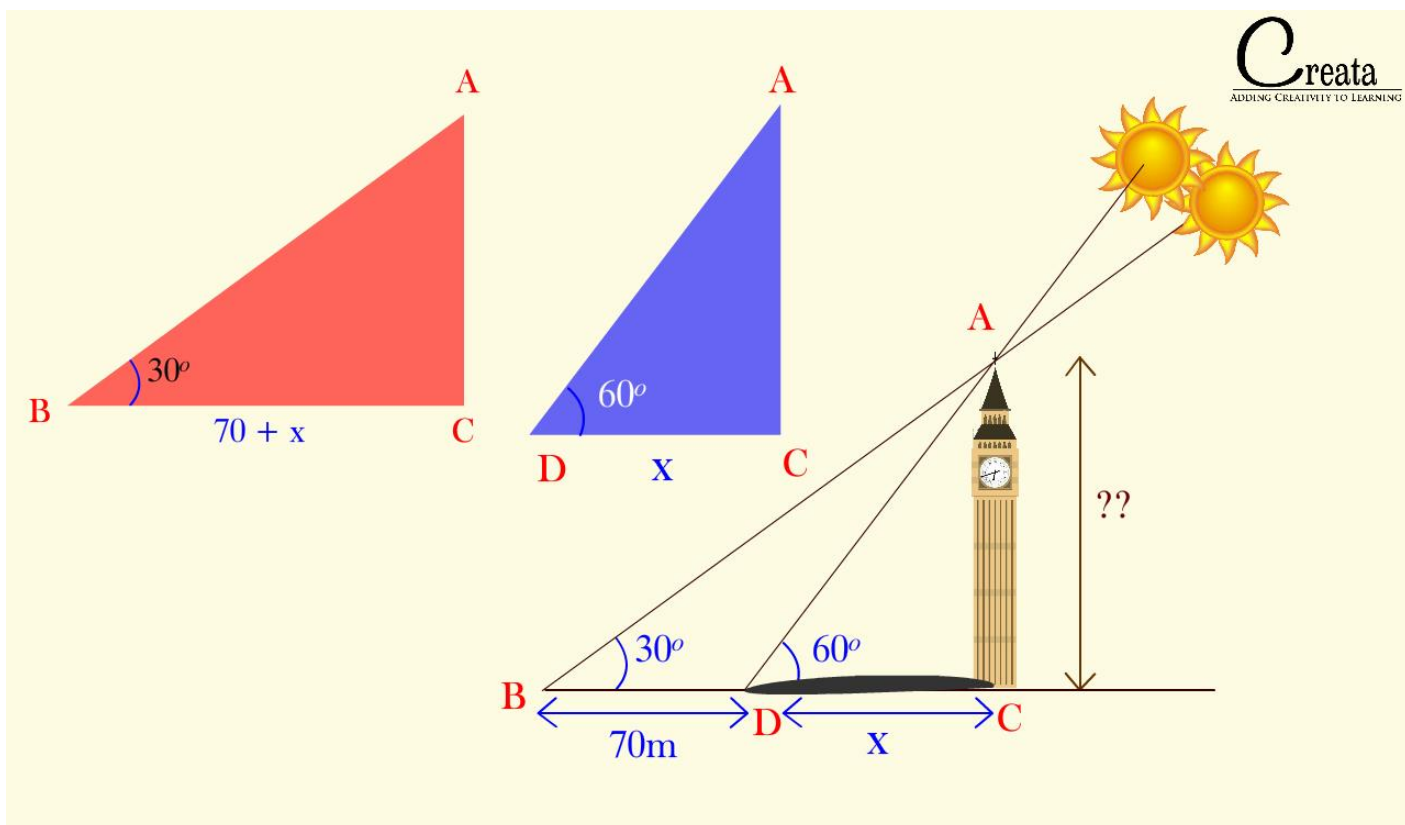Answer: $10(\sqrt{3}-1)$

Hint:

Q2) When the sun's altitude changes from 30° to 60°, the length of the shadow of a tower decreases by 70m. What is the height of the tower?
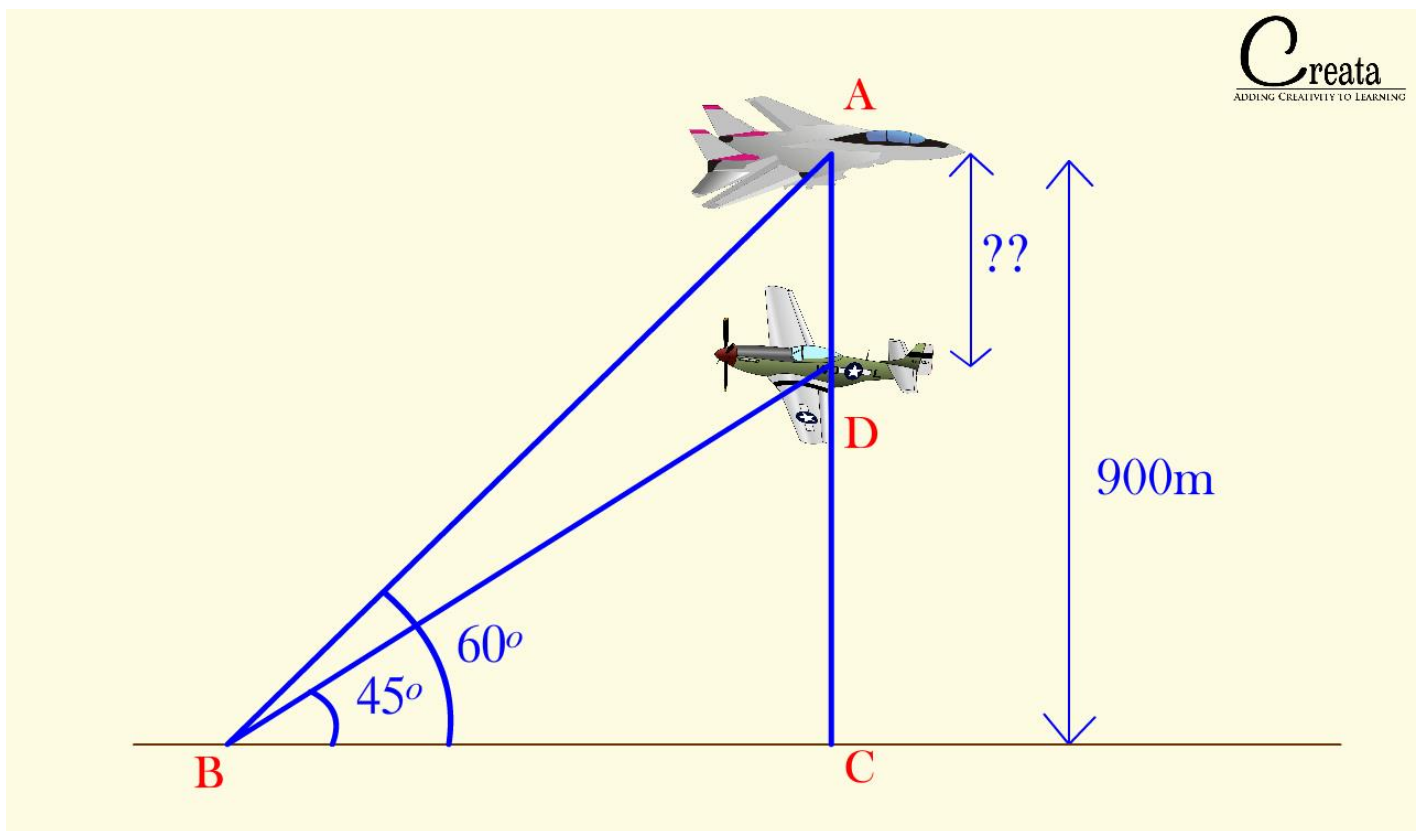
Answer: 35√3

Q3) An aeroplane when 900 m high passes vertically above another aeroplane at an instant when their angles of elevation at same observing point are 60° and 45° respectively. Approximately, how many meters higher is the one than the other?

Answer: 381 m

Hint:

Q4) A car is moving at uniform speed towards a tower. It takes 15 minutes for the angle of depression from the top of tower to the car to change from 300 to 600. What time after this, the car will reach the base of the tower?
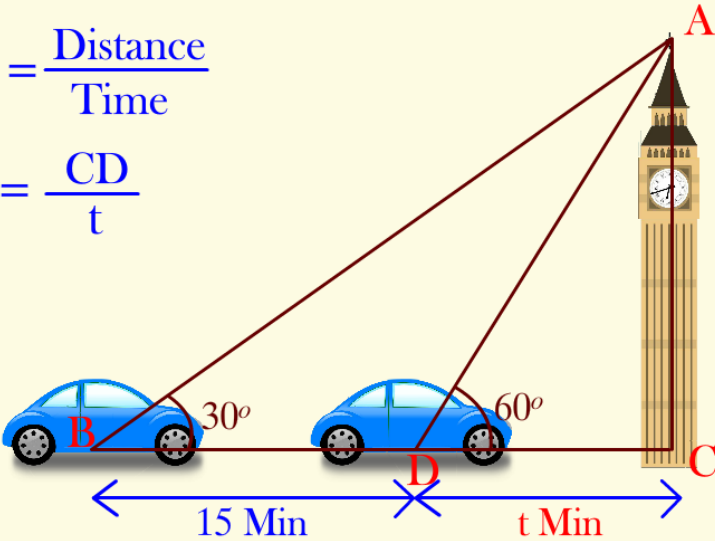
Answer: 7.5m

Hint:

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$S = \frac{BD}{15}$$

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$S = \frac{CD}{t}$$

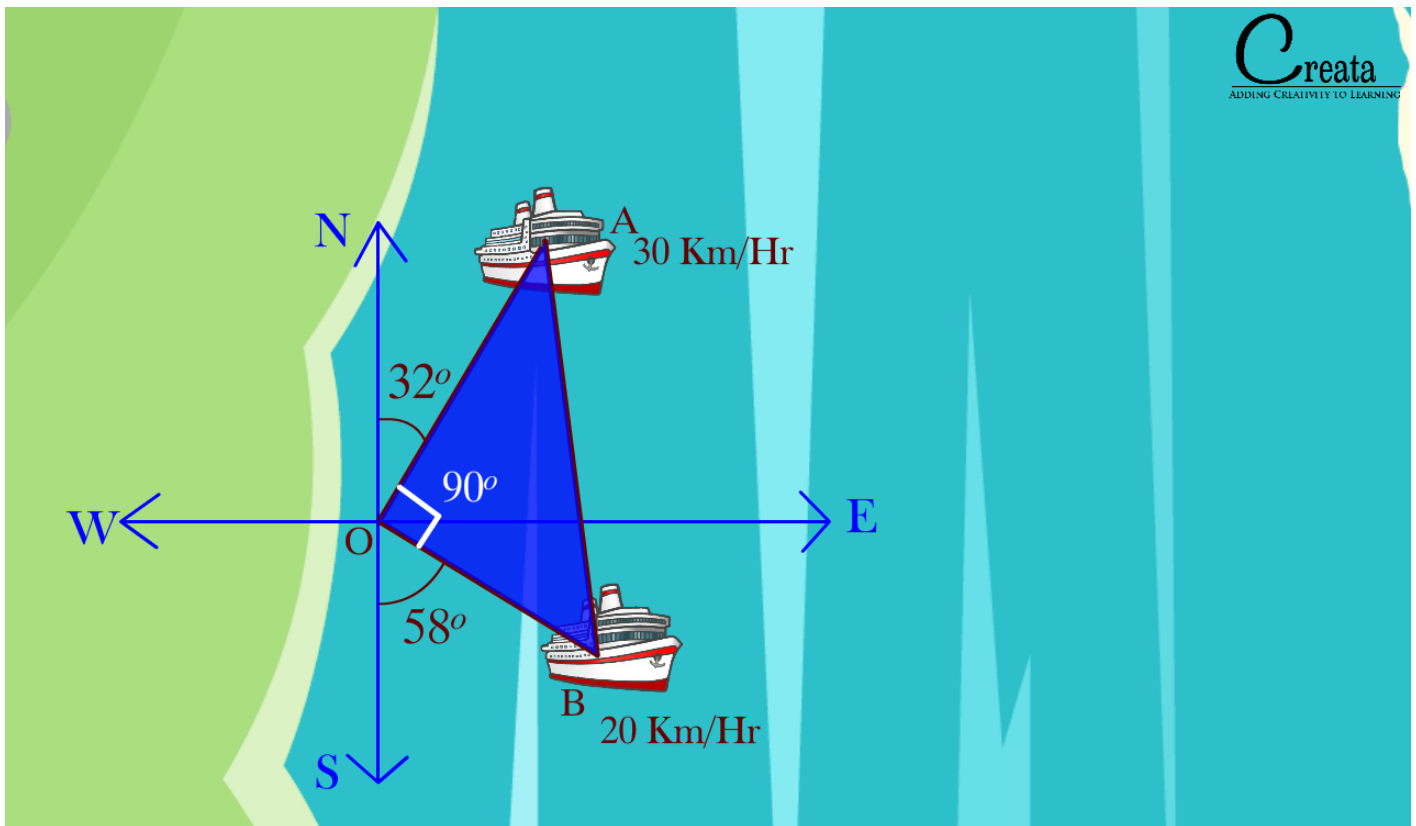$$\frac{BD}{15} = \frac{CD}{t}$$

A

30° 60°

B D C

15 Min   t Min

Q5) Two ships leave a port at the same instant. One sails at 30km/hr in the direction N 32° E while the other sails at 20 km/hr in the direction S 58° E. Find the distance between the ships, after 2 hour of the journey?

Answer: 20√3

Hint:

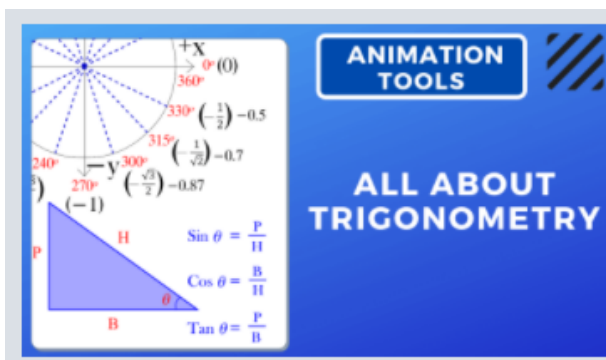*For Detail Video Solutions, through Animation & Visual Tools, refer our Course "ALL ABOUT TRIGONOMETRY".*

Creata
ADDING CREATIVITY TO LEARNING

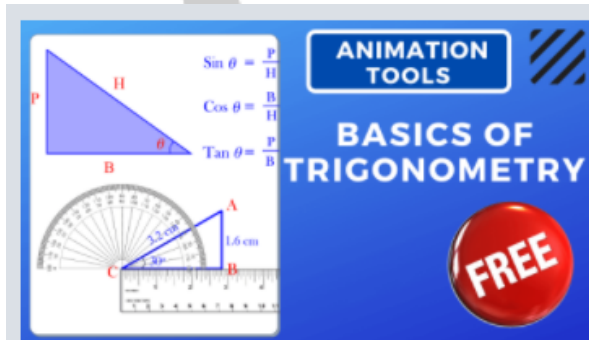# JOIN TRIGONOMETRIC COURSES

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HD Content | All Levels

Notes: