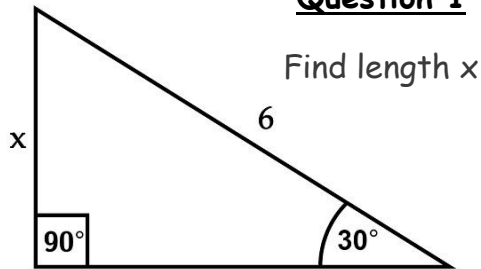


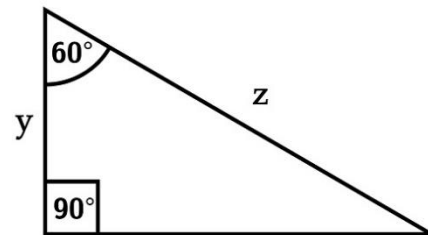
Using Special Right Triangles

Question 1



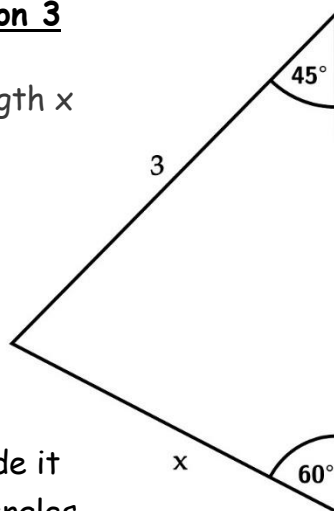
Question 2

Find y in terms of z



Question 3

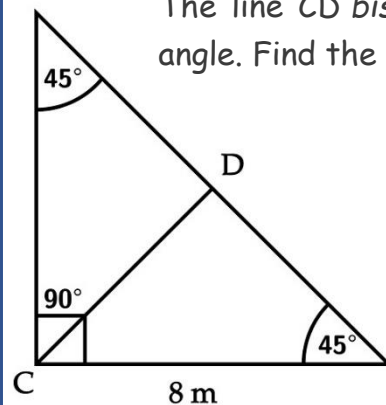
Find length x



Hint: Divide it into 2 triangles.

Question 4

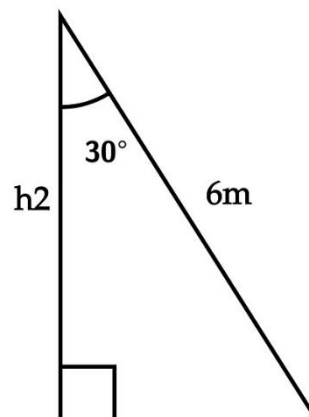
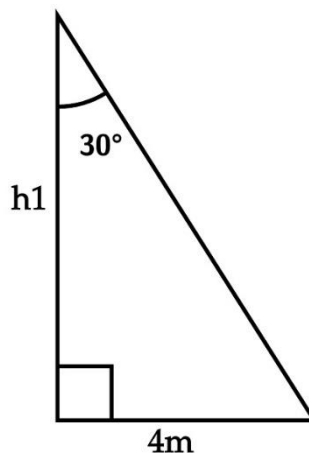
The line CD bisects the right-angle. Find the length of CD .



Question 5

Two pirates are boasting about the flags on their ships. Beefy Jim says his flag is the tallest, but One-Eyed Jake thinks his flag is taller because its diagonal length is so long.

Which pirate is right? (Jim's flag has height h_1 , Jake's flag has height h_2 .)



Using Special Right Triangles

Answers

Question 1

SOH CAH TOA

$$x = 3$$

Question 2

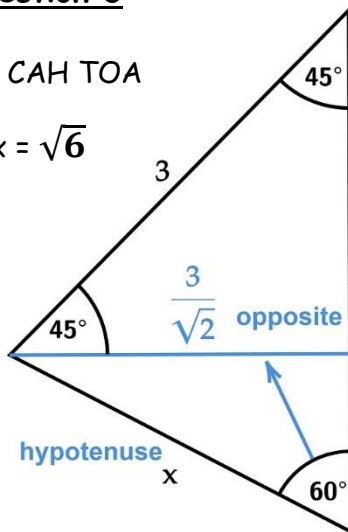
SOH CAH TOA

$$y = \frac{1}{2}z$$

Question 3

SOH CAH TOA

$$x = \sqrt{6}$$



Question 4

SOH CAH TOA

$$CD = 4\sqrt{2}$$

Question 5

SOH CAH TOA

Jim's flag has height $h_1 = 4\sqrt{3} \approx 6.9\text{m}$

SOH CAH TOA

Jake's flag has height $h_2 = 3\text{m}$

Jim's flag is much taller.