

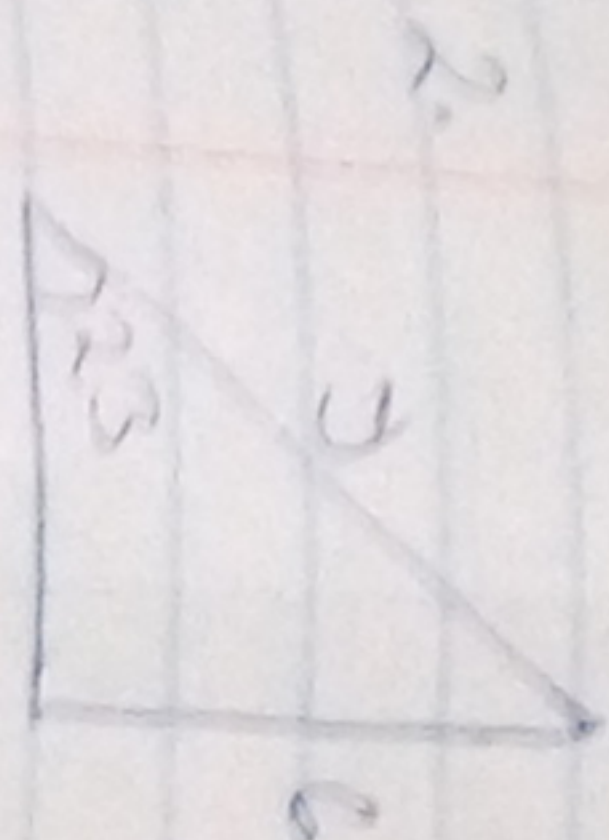
1 Triple  
16, 24, 26

Solution

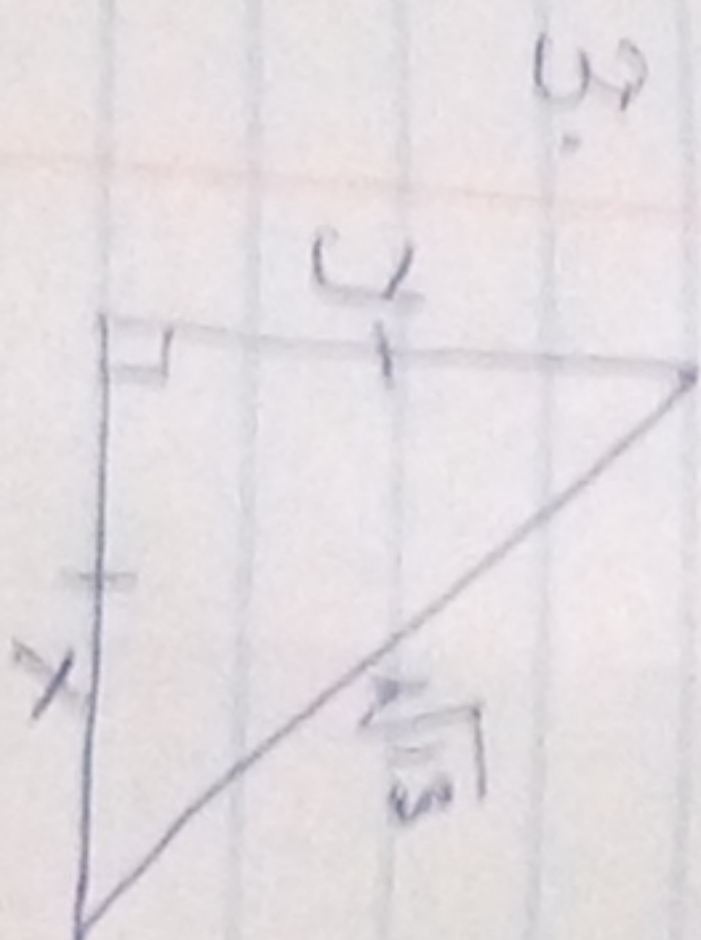
Triple means take the number

$$= 10^3, 24^3, 26^3$$

$$= 1000, 13824, 17576$$



$$\begin{aligned} \sin 23 &= \frac{6}{y} \\ y &= \frac{6}{\sin 23} \\ &= 15.36 \end{aligned}$$



$$\begin{aligned} x &= 2.55 \\ y &= 2.55 \end{aligned}$$

This is right angle triangle where two angles are equal and hence  $x$  and  $y$  are equal. The other angles are  $45^\circ$  each.

$$\sin \theta = \frac{\text{Opposite}}{\text{Hypotenuse}}$$

$$\sin 45 = \frac{x}{11.3}$$

$$x = 11.3 \sin 45$$

$$\begin{aligned} x &= 2.55 \\ y &= 2.55 \end{aligned}$$

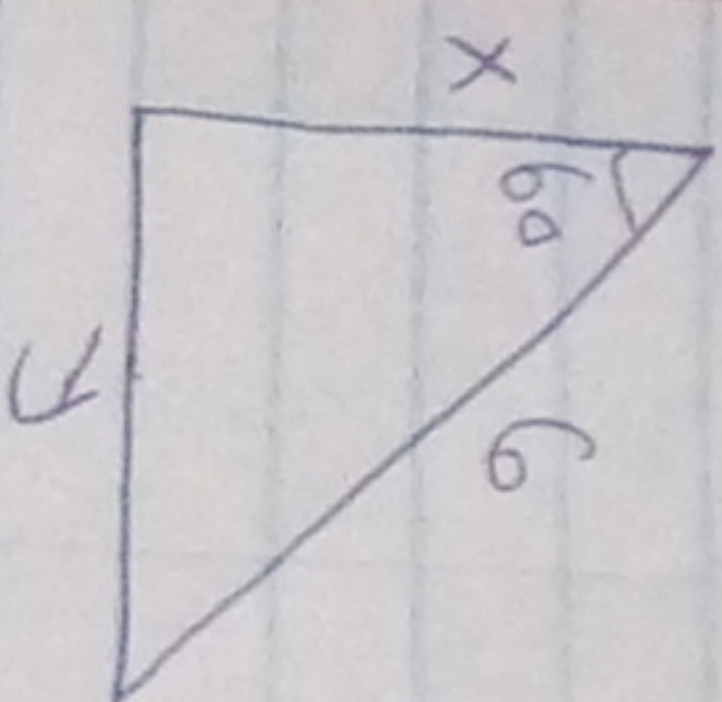
$$1. \cos \theta = 0.2419$$

$$\theta = \cos^{-1} 0.2419$$

$$= 76.0013^\circ$$

$$= 76^\circ$$

2.



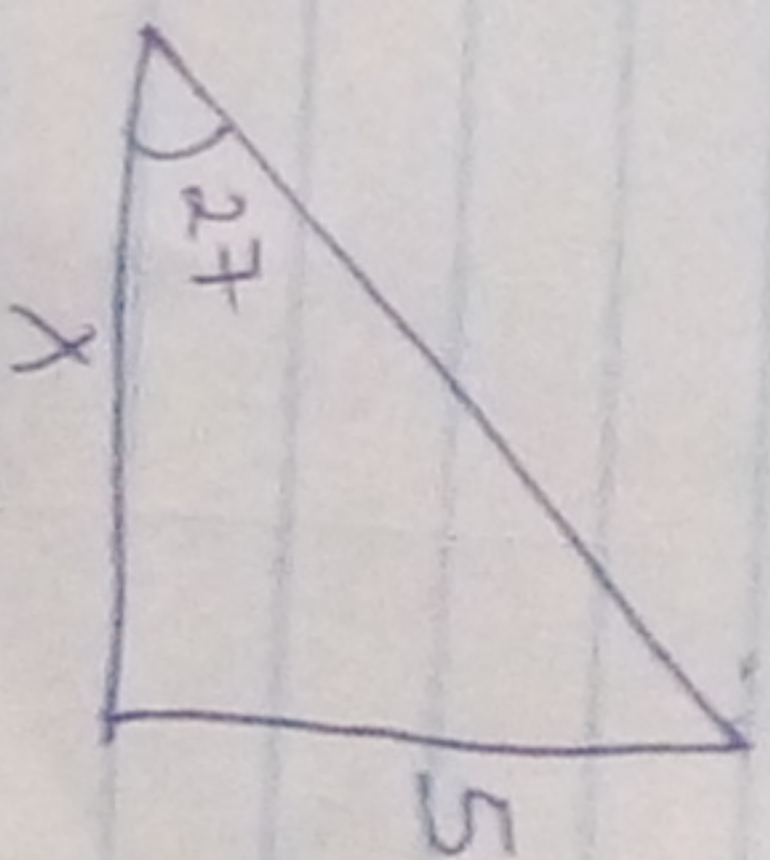
$$x = 3$$

$$y = 5.196$$

$$y = 6 \sin 60 = 5.196$$

$$x = 6 \cos 60 = 3$$

3.



$$x = 9.813$$

$$x = \frac{5}{\tan 27}$$

$$= \frac{5}{0.5095}$$

$$= 9.813$$

$$= 9.813$$

$$A[-3, -2, -1] \quad B[-1, 0, 1] \quad C[1, 2, 3]$$

(1)  $A \cap B$

This means the elements which are common in both A and B

$$A \cap B = -1$$

$$= [-1]$$

(2)  $B \cup C$

unites elements of B and C without repeating the same element

$$B \cup C = [-1, 0, 1, 2, 3]$$

(3)  $(A \cup B) \cup C$

unites elements of A and B and C

$$[-3, -2, -1, 0, 1, 2, 3]$$