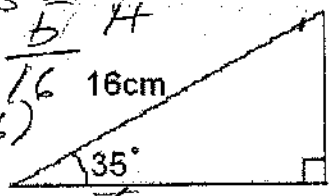
KEY SOH CAH TOA

Trigonometry Worksheet T3 – Calculating Sides

Use Trig Functions

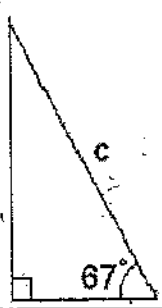
Work out the sides labelled. Questions 1 and 2 require Sine, questions 3 and 4 require Cosine, question 5 and 6 require Tangent. The rest .... you will need to work out which to use and how! (Worksheet T1 may help you!!)

1. $\sin 35 = \frac{O}{H}$ $\quad .57 = \frac{b}{16}$ $\quad b = .57(16)$ $\quad b = 9.18$

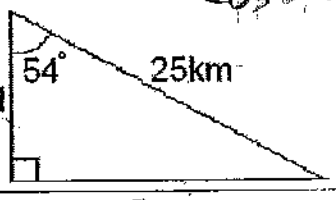


9.18cm

2. $\sin 67 = \frac{8}{c}$ $\quad 8.69m$

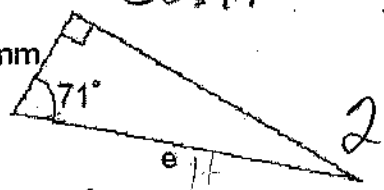


3. $\cos 54 = \frac{d}{25}$



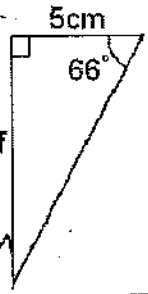
14.7Km

4. $\cos 71 = \frac{7}{e}$

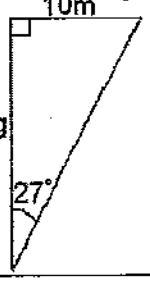


21.5mm

5. $\tan 66 = \frac{O}{A}$ $\quad 2.25 = \frac{f}{5}$ $\quad f = 2.25(5)$ $\quad f = 11.23cm$

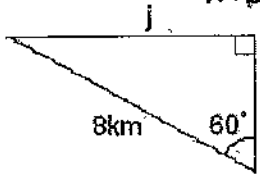


6. $\tan 27 = \frac{10}{g}$



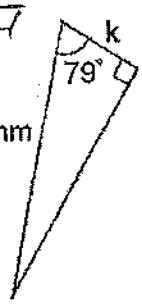
19.6m

7. $\sin 60 = \frac{j}{8}$



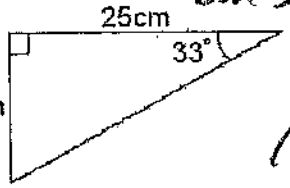
6.9Km

8. $\cos 79 = \frac{A}{H}$ $\quad .19 = \frac{k}{15}$ $\quad k = .19(15)$ $\quad k = 2.9mm$



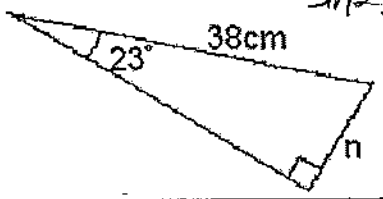
2.9mm

9. $\tan 33 = \frac{m}{25}$



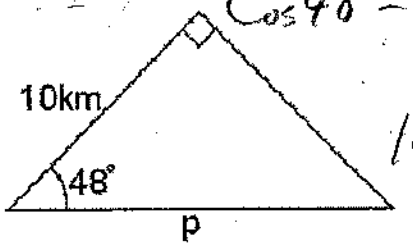
16.24cm

10. $\sin 23 = \frac{n}{38}$



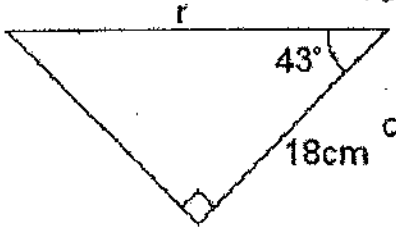
14.85cm

11. $\cos 48 = \frac{10}{p}$



14.9Km

12. $\cos 43 = \frac{18}{r}$



24.6cm

KEY S O/H C A/H T O/A

Trigonometry Worksheet T4 – Calculating Angles

Use Inv ° Trig functions

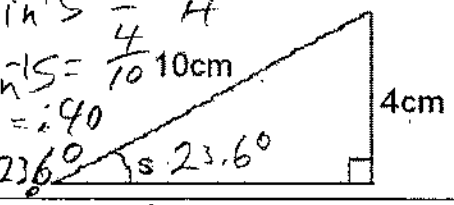
Work out the angles labelled. Question 1 requires Sine, question 2 requires Cosine, and question 3 requires Tangent. The rest .... you will need to work out which to use!

1. $\sin^{-1} S = \frac{O}{H}$

$\sin S = \frac{4}{10}$

$\sin S = .40$

$\angle S = 23.6°$

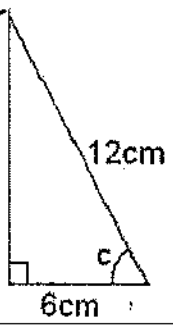


2. $\cos^{-1} C = \frac{A}{H}$

$\cos^{-1} C = \frac{6}{12}$

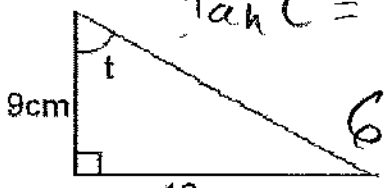
$\cos^{-1} C = .5$

$\angle C = 60°$



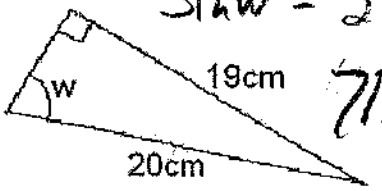
3. $\tan t = \frac{18}{9}$

63.4°



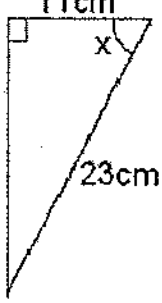
4. $\sin w = \frac{19}{20}$

71.8°



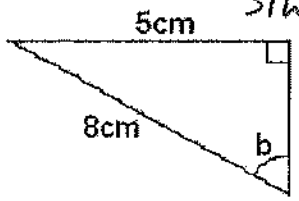
5. $\cos x = \frac{11}{23}$

61.4°



6. $\sin b = \frac{5}{8}$

38.6°

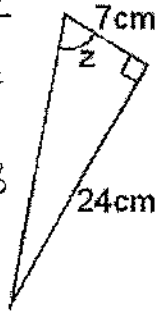


7. $\tan^{-1} Z = \frac{O}{A}$

$\tan^{-1} Z = \frac{24}{7}$

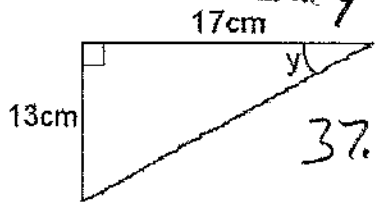
$\tan^{-1} Z = 3.43$

$\angle Z = 73.7°$



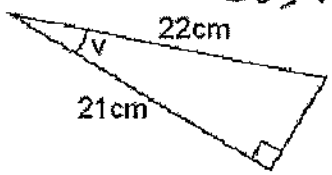
8. $\tan y = \frac{13}{17}$

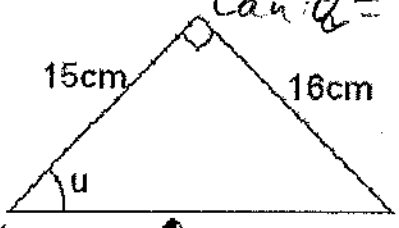
37.4°



9. $\cos V = \frac{21}{22}$

17.3°



10. $\tan u = \frac{16}{15}$

46.85°