

TRIGONOMETRY REVISION WORKSHEET 2

[30]

Grade 10 - SOLVING RIGHT TRIANGLES: FINDING AN ANGLE EXERCISES

When completing these revision questions keep in mind that you are aiming for a work pace of 'a mark a minute'. You should therefore aim to stick to the mark allocation given to each question.

Furthermore, the following can be used to remind you of the important new concepts that have been introduced:

In order to calculate an angle, the sequence of buttons to press on most calculators will be as follows:

- Press the SHIFT button followed by the $\sin / \cos / \tan$ button. The $\cos^{-1}$ will appear on the calculator screen.
- Enter the ratio value (ie. $\frac{1}{2}$ or 0,5)
- Press the " = " button (some calculators may require that the bracket is closed first before pressing the " = " button)

NOTE:

- ★ Some calculators may have the button INV or 2nd F instead of a SHIFT button.
- ★ Always ensure that the calculator is on degree mode [DEG]

Practice frequently to improve your understanding and complete your work quickly but correctly.

EXERCISE

Find the following angles using your calculator.

1. Determine the size of the acute angle θ in each of the following, rounding your answers off to two decimal places where necessary.

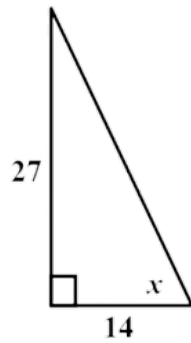
- | | |
|--------------------------|--------------------------|
| a) $\sin \theta = 0,866$ | b) $\cos \theta = 0,866$ |
| c) $\tan \theta = 1,703$ | d) $\sin \theta = 1$ |
| e) $\cos \theta = 1$ | f) $\tan \theta = 1$ |

2. Solve the following equations by finding the size of the acute angle θ , in each case rounding your answers off to one decimal place where necessary.

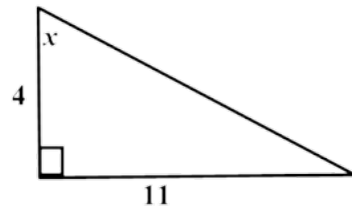
- | | |
|---------------------------|---------------------------|
| a) $\cos 3\theta = 0,33$ | b) $3\cos \theta = 0,33$ |
| c) $\sin 4\theta = 0,888$ | d) $\tan 4\theta = 4$ |
| e) $4\tan 4\theta = 4$ | f) $2\sin \theta = 1,412$ |

3. Find the angle x in each of the triangles shown below:

a)



b)



c)

