

Fill in the Blanks

Finding Angles Using Trigonometry

| Labelled diagram | Choose ratio | Substitute into formula | Rearrange formula | Answer (1dp) |
|------------------|--------------|----------------------------|---|--------------|
| | cos | $\cos x = \frac{7}{12}$ | $x = \cos^{-1}\left(\frac{7}{12}\right)$ | 54.3° |
| | sin | $\sin x = \frac{5}{8}$ | $x = \sin^{-1}\left(\frac{5}{8}\right)$ | 38.7° |
| | cos | $\cos x = \frac{23}{40}$ | $x = \cos^{-1}\left(\frac{23}{40}\right)$ | 54.9° |
| | tan | $\tan x = \frac{7.2}{3.5}$ | $x = \tan^{-1}\left(\frac{7.2}{3.5}\right)$ | 64.1° |
| | sin | $\sin x = \frac{2}{13}$ | $x = \sin^{-1}\left(\frac{2}{13}\right)$ | 8.8° |
| | tan | $\tan x = \frac{2.2}{2.7}$ | $x = \tan^{-1}\left(\frac{2.2}{2.7}\right)$ | 39.2° |
| | cos | $\cos x = \frac{2}{3}$ | $x = \cos^{-1}\left(\frac{2}{3}\right)$ | 48.2° |
| | tan | $\tan x = \frac{15}{11}$ | $x = \tan^{-1}\left(\frac{15}{11}\right)$ | 53.7° |