

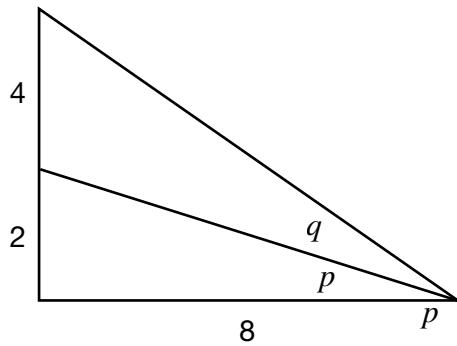
DOUBLE ANGLE FORMULA

CALCULATOR

1) If $\tan x = \frac{2}{\sqrt{5}}$ where x is acute work out the exact value of each of the following.

- a) $\sin x$ b) $\cos x$ c) $\sin 2x$ d) $\cos 2x$

2) The diagram shows a right angled triangle with a height of 6 units and a base of 8 units.

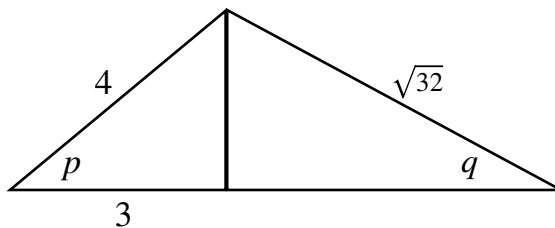


Calculate the exact value of each of the following.

- a) $\cos(p + q)$ b) $\sin(p + q)$ c) $\sin 2p$ d) $\cos 2p$

3) Solve the equation $2 \cos 2x^\circ + 2 \cos x^\circ = 0$ where $0 \leq x \leq 360$.

4) The diagram shows two right-angled triangles.



a) Show that $\sin q = \sqrt{\frac{7}{32}}$

b) Work out the exact values of $\cos(p - q)$ and $\sin(p - q)$.