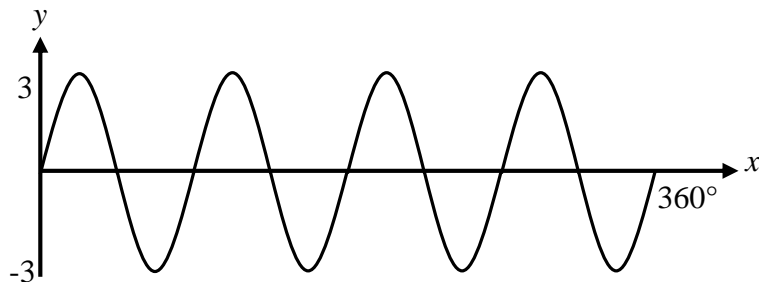




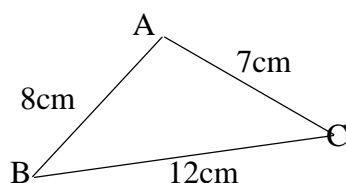
1. The graph below has equation $y = a\sin bx$. State the values of a and b .



2. The cost of 3 tennis rackets and one tube of 5 balls is £ 139.25
- a) Write down an equation in a and b to represent this information.
- b) The cost of 5 identical rackets and 3 tubes of 5 balls is £235.75.

Write down a second equation in a and b to represent this information.

- c) Find the cost of a racket and a tube of tennis balls.
3. Solve $3x^2 - 5x - 1 = 0$ correct to 1 decimal place.
4. A camera cost £317.90 after a 15% sale reduction. How much was the camera before the sale?
5. Find the size of angle BAC below.



6. Solve $3\tan x^\circ + 4 = 0$
7. Two points have coordinates A (4,7) and B (p ,1). The gradient of the line AB is -3. Find the value of p .
8. A function has equation $f(x) = (32)^x$. Find the value of $f(\frac{3}{5})$.
9. Express $\frac{8}{\sqrt{10}}$ with a rational denominator in its simplest form.
10. Fully simplify $\frac{x^2+4x-12}{x^2-4}$.