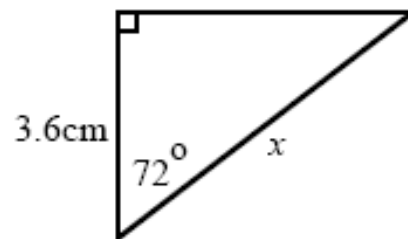


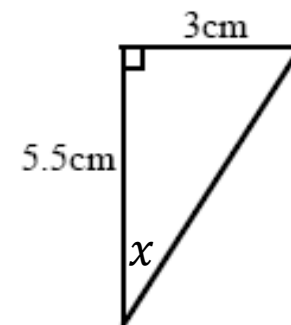
(a) Write $x^2 - 6x - 3 = 0$ in the form $(x + a)^2 + b = 0$

(b) Hence solve $x^2 - 6x - 3 = 0$

Calculate the length of x



Calculate the size of angle x

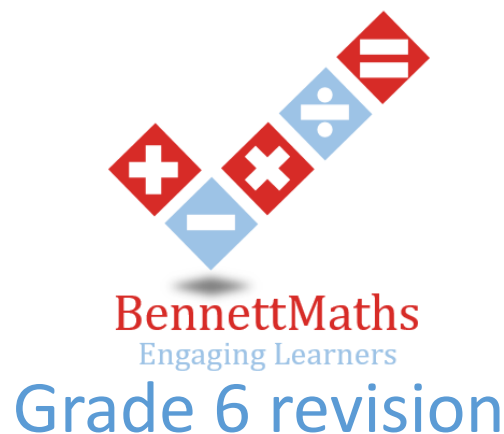


Calculate;

(a) $27^{\frac{2}{3}}$

(b) 4^{-2}

(c) 16^0



Prove that the sum of 3 consecutive even numbers is always even

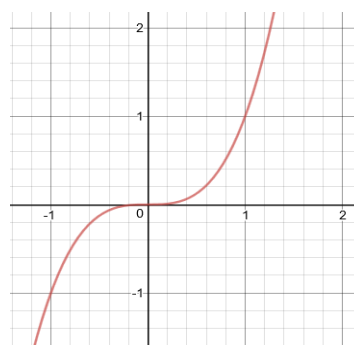
Prove that the sum of the squares of any three consecutive odd numbers is always 11 more than a multiple of 12

Solve;

$$3x + 2y = 16$$

$$4x + 3y = 23$$

Write the equation for the graph below



Calculate the n th term for each of the sequences below;

(a) 6, 14, 24, 36, 50

(b) 4, 9, 18, 31, 48

(c) 3, 9, 17, 27, 39