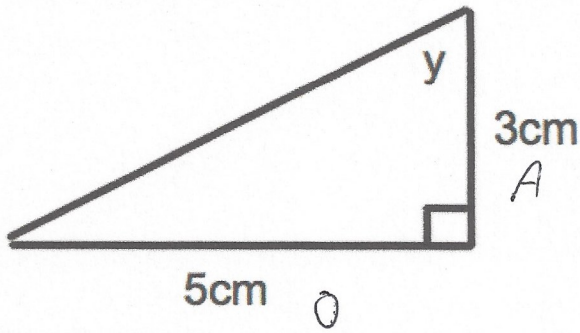


10th December



Corbettmaths

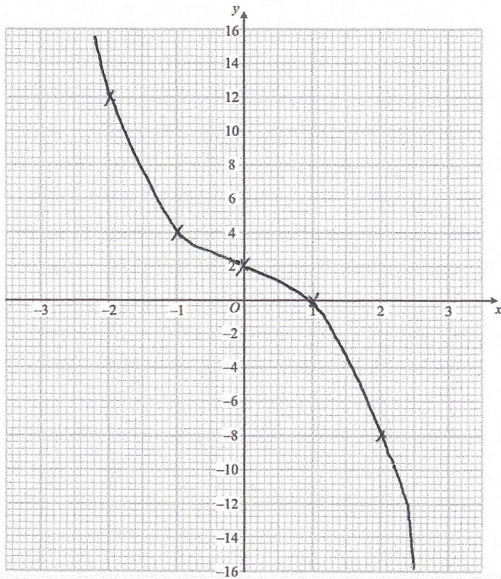


Calculate angle y

$$\tan y = \frac{3}{5}$$

$$y = 59.04^\circ$$

On the grid, draw the graph of $y = -x^3 - x + 2$ for the values of x $-2 \leq x \leq 2$



x	-2	-1	0	1	2
y	12	4	2	0	-8

The pressure of a tyre is 34 pounds per square inch.

Given 1 pound = 0.4536 kilograms
1 inch = 2.54 centimetres

$$2.54^2 = 6.4516$$

Work out the pressure in grams per square centimetre.

$$34 \text{ lbs/in}^2 \times 0.4536 = 15.4224 \text{ kg/in}^2$$

$$15.4224 \text{ kg/in}^2 \times 1000 = 15422.4 \text{ g/in}^2$$

$$15422.4 \text{ g/in}^2 \div 6.4516 = 2390.48 \text{ g/cm}^2$$

Kevin writes down a 5 digit number.

- It is less than 80,000.
- It is a multiple of 5.
- The middle digit is a prime number.

0 5
2 3 5 7

How many different possible numbers could Kevin have written down?

1st 2nd 3rd 4th 5th

$$7 \times 10 \times 4 \times 10 \times 2 = 5600$$