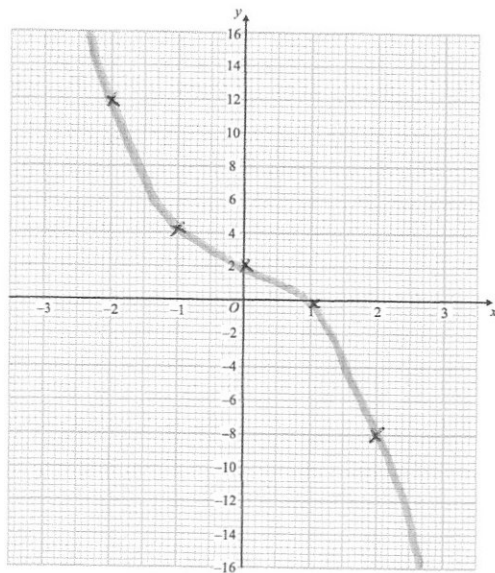


Calculate angle y

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

$$y = 59.04^\circ$$

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.

$$\begin{aligned} 36 \text{ psi (lb/in}^2) & \times 0.4536 \\ 15.4224 \text{ kg/in}^2 & \times 1000 \\ 15422.4 \text{ g/in}^2 & \div 6.4516 \\ 2390.48 \text{ g/cm}^2 & \end{aligned}$$

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.

How many different possible numbers could Kevin have written down?

$$\begin{aligned} & 1^{\text{st}} \quad 2^{\text{nd}} \quad 3^{\text{rd}} \quad 4^{\text{th}} \quad 5^{\text{th}} \\ & 7 \times 10 \times 4 \times 10 \times 2 \\ & 5600 \end{aligned}$$