

March 11th

5-a-day

Numeracy



Show the time 2:30 on the clock

Write 14% as a decimal

$$0.14$$

Write 24% as a fraction

$$\frac{24}{100} = \frac{12}{50} = \frac{6}{25}$$

Work out 15% of 3000

$$10\% = 300$$

$$5\% = 150$$

$$450$$

Tina says "When you multiply an odd number and an even number together, you will always get an odd number."

Is Tina correct?

No

$$3 \times 4 = 12$$

This sequence increases by the same number each time

$$10 \quad \overline{\quad} \quad \overline{\quad} \quad 34 \quad \overline{\quad}$$
$$18 \quad 26 \quad 42$$

Work out the three missing numbers.

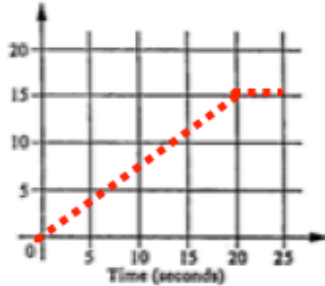
$$24 \div 3 = 8$$

Solve $3(x + 1) > 5 - x$

$$\begin{array}{r} 3x + 3 > 5 - x \\ +x \quad +1 \\ \hline 4x + 3 > 5 \\ -3 \quad -3 \\ \hline \end{array}$$

$$\begin{array}{r} 4x > 2 \\ \div 4 \quad \div 4 \\ \hline x > 0.5 \end{array}$$

distance from point A (m)

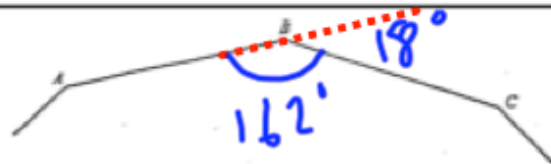


Horse passes point A and travels 15 metres in 20 seconds. The horse then stops for 5 seconds.

Complete the distance-time graph

Calculate the speed of the horse, in metres per second, for the first 20 seconds of the journey.

$$s = \frac{d}{t} = \frac{15}{20} = 0.75 \text{ m/s}$$



A, B and C are vertices of a regular 20-sided polygon.

$$360 \div 20 = 18^\circ$$

Calculate the angle ABC

$$162^\circ$$

The circumference of a tennis ball is 20cm.

What is the radius?

$$\begin{array}{l} C = \pi \times d \\ d = C \div \pi \end{array}$$

$$20 \div \pi = 6.366 \dots \text{ cm}$$

$$6.366 \dots \div 2 = 3.18 \text{ cm}$$

Triangle ABC is isosceles.

One angle is x

Another angle is $2x$

Find the two possible values of x



$$2x + 2x + x = 180$$

$$5x = 180$$

$$x = 36$$

Answer 1 $x =$

$$x + x + 2x = 180$$

$$4x = 180$$

Answer 2 $x = 45^\circ$

Which equation has solutions which are rational?

$$\frac{4y^2}{6} = 10$$

$$4y^2 = 60$$

$$y^2 = 15$$

$$\frac{4y^2}{8} = 11$$

$$4y^2 = 88$$

$$y^2 = 22$$

$$\frac{4y^2}{3} = 12$$

$$4y^2 = 36$$

$$y^2 = 9$$

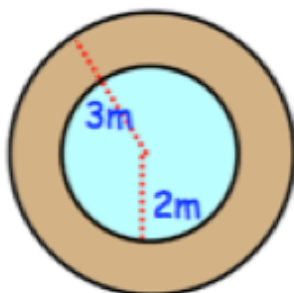
$$y = \sqrt{15} \quad y = \sqrt{22} \quad y = 3$$

Write down the gradient of a line that is perpendicular to the line $y = 2x$

$$-\frac{1}{2}$$

Write down the equation of a line perpendicular to $y = 2x$

$$y = -\frac{1}{2}x + 3$$



Calculate the area of the path

$$\pi \times 3^2 - \pi \times 2^2$$

$$= 15.7 \text{ m}^2$$