

YEAR 7 MATHS REVISION - June 2017 (Part 1 of 2)

Lucy thinks that 1.422 is bigger than 1.43 because it has more digits. Is she correct?

Here are two number sequences.

8, 5, 2, -1, m, n, -10.....
-9, n, p, 6.....

Find the values of n, m and p.

There are errors in the following calculations.

Find the errors and correct them

$$\begin{array}{r} 4352 \\ + 358 \\ \hline 7932 \end{array}$$

$$\begin{array}{r} 5349 \\ - 378 \\ \hline 5031 \end{array}$$

Molly has £540.67 in the bank.

She buys her weekly shopping that costs £60.72

How much does Molly have left in the bank?

Here is a square.
Inside the square is an equilateral triangle.
The perimeter of the triangle is 54 cm
Find the perimeter of the square.



$$\begin{aligned} \dots \times 10 &= 670 \\ 100 \times \dots &= 670 \\ 670 &= \dots \div 1000 \\ 670 &= 0.67 \times \dots \\ 6.7 &= 670 \div \dots \end{aligned}$$

A school needs to buy 76 calculators.

They cost £4.74 each.
How much do the 76 calculators cost in total?

Work out

$$3^2$$

$$8^2$$

$$5^3$$

Seven squared
Two cubed

Katie says,

All prime numbers have to be odd.

Do you agree? Convince me.

Label the following diagram to show that 50cm as a fraction of 2m is $\frac{1}{4}$.



What fraction is shaded on these diagrams?



○ Can any be simplified?

Fiona thinks that $\frac{127}{5}$ is bigger than $24\frac{1}{2}$. Is she correct?
Explain your reasoning.

Find the missing numbers to make equivalent fractions.

○ $\frac{?}{11} = \frac{18}{66}$ $\frac{4}{?} = \frac{32}{56}$

Work out the following:

$$5 \overline{)4.00}$$

$$8 \overline{)7.000}$$

Two horses, Tino and Rocky are in a race.

The probability that Tino wins is $\frac{2}{5}$

The probability that Rocky wins is $\frac{1}{3}$

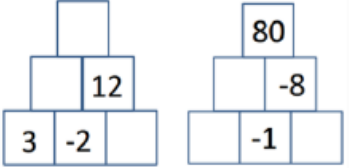
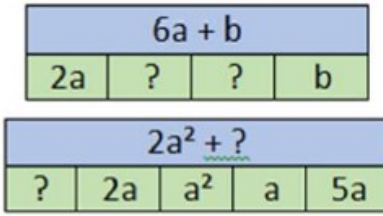


Which horse is more likely to win?

Suleman says,

$$\frac{2}{9} + \frac{2}{9} = \frac{4}{18}$$

Convince Suleman that he is wrong.

YEAR 7 MATHS REVISION - June 2017 (Part 2 of 2)

<p>Casey eats $\frac{1}{12}$ of a cake and Jacob eats $\frac{1}{8}$ of the same cake. What fraction of the cake was eaten in total?</p>	<p>Hayley gets £5 pocket money every week. She spends $\frac{3}{10}$ of the money and saves the rest. Sammy thinks she will save £14 after 4 weeks. Is Sammy correct?</p>	<p>What is the definition of a hypothesis?</p>	<p>Find the mode, range and median of the following data sets.</p> <ul style="list-style-type: none"> ○ 2, 11, 8, 3, 9, 2, 5, 2, 3 ○ 2, 2.1, 2.23, 2.12, 2.01, 2.1
<p>Calculate the following</p> <ul style="list-style-type: none"> ○ $4 - 10$ ○ $-9 + 1 - 5$ ○ $-3 + (-2)$ ○ $5 - (-1)$ ○ $-5 + 8$ ○ $2 - (+8)$ ○ $-2 + (+3)$ ○ $-7 - (-3)$ 	<p>The number above is the product of the two numbers below. Fill in the missing boxes.</p> 	<p>Jenny is n years old.</p> <ul style="list-style-type: none"> ○ How old will Jenny be next year? ○ Jenny's brother is 10 years younger than her. How old is her brother? ○ Jenny's sister is half her age. How old is her sister? ○ Jenny's cousin is double her age. How old is her cousin? 	<p>Re-write the following calculations so that they each follow the correct algebraic convention.</p> <p>$b + b$ $2 \times b$ $d \times a \times c$ $(4 + b) \times c$ $a \times a \times a \times a \times a$ $2 + a + a + a$</p>
<p>Given that $a = 3$, $b = 4$, $c = -5$, find the value of:</p> <ul style="list-style-type: none"> ○ $12 - b$ ○ $c + a$ ○ $a - c$ ○ $2a$ ○ $10 - ab$ 	<p>What could go in the missing gaps?</p> 	<p>Dave says that all these statements are true. Is he correct?</p> <ul style="list-style-type: none"> ○ $a + a + a + a = a^4$ ○ $a \times a \times a = 3a$ ○ $3y \times b = y3b$ ○ $d \times 3f + 7 = 21df$ ○ $6y \times 3y = 18y^2$ 	<p>Can you write an algebraic equation to represent the function machine?</p>  <p>Explain how you can find the input.</p>
<p>These two regular polygons have the same perimeter.</p>  <p>Work out the value of w</p>	<p>Fill in the numbers.</p> <ul style="list-style-type: none"> ○ 3, __, __, __, 19, __, 27 ○ 10, __, __, 25, __, __, 40 ○ -5, __, -17, __, -29, __ ○ __, __, __, -8, __, __, 4 	<p>The number 76 does NOT appear in the sequence $8n + 6$. What is the closest term to 76 that does appear in the sequence?</p>	<p>The rule:</p> <p style="border: 1px solid black; padding: 2px; display: inline-block;">Subtract 5, then multiply by 3.</p> <p>If the 3rd term is 57, what was the first term?</p>