Barnston Primary School

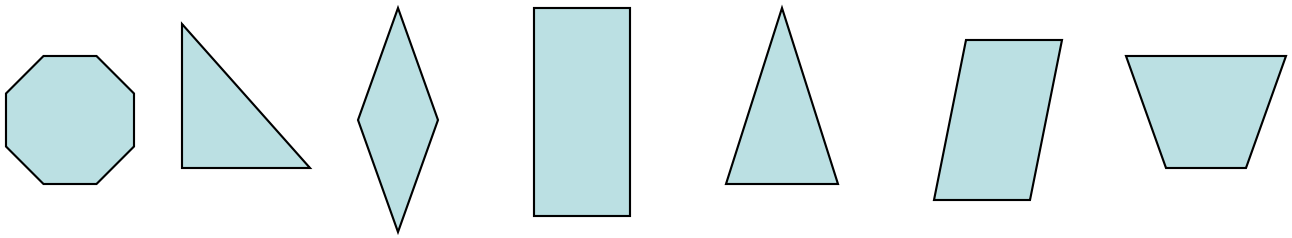
Mad About Maths Resource Ideas for Parents

Sorting

Two sets have been mixed together. Can you sort the objects back into two sets? (The sets do not need to be the same size.)

1. 1, 2, 3, 4, 5, 6, 7, 8

2. 353, 378, 451, 502, 437, 549, 450, 449

3. 

4. 20 ÷ 3, 23 ÷ 3, 25 ÷ 3, 14 ÷ 3, 7 ÷ 3, 2 ÷ 3, 1 ÷ 3

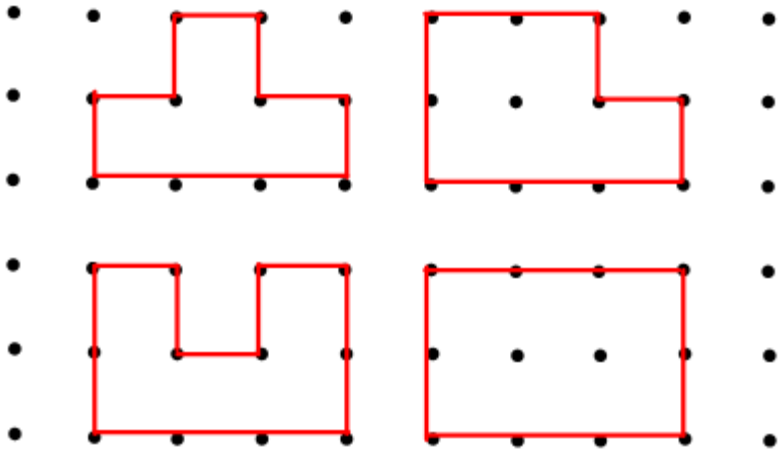
Odd One Out

1. Which sequence is the odd one out, and why?
   2, 5, 8, 11, …
   6, 9, 12, 15, …
   7, 10, 13, 16, …
   34, 37, 40, 43, …
   -4, -1, 2, 5, …

2. Which calculation is the odd one out, and why?
   $3 \times 10 = 30$
   $31 \times 10 = 310$
   $423 \times 10 = 4230$
   $0.3 \times 10 = 3$
   $1111 \times 10 = 11110$

3. Which point is the odd one out, and why?
   (3,7) (6,13) (-2,-3) (0,2) (10,21)

4. Which shape is the odd one out, and why?



Always, Sometimes, Never True

1. Numbers in the 5 times table end with a 5
2. Numbers that end with a 5 belong to the 5 times table
3. An even number ÷ an even number = an even number
4. A decimal number – a decimal number = a whole number
5. To multiply a number by 10, put a 0 on the end
6. Division always makes a number smaller
7. Rectangles with larger perimeters have larger areas
8. A shape with equal sides is regular.

Impossible Constructions

1. A multiple of 6 that is not a multiple of 3

2. A square number with an even number of factors

3. An odd number and an odd number whose sum is odd.

4. An event with a probability greater than 1

5. A whole number with 2 units and a whole number with 5 units whose product does not have 0 units

Confounding Expectations

Find or construct an example of…

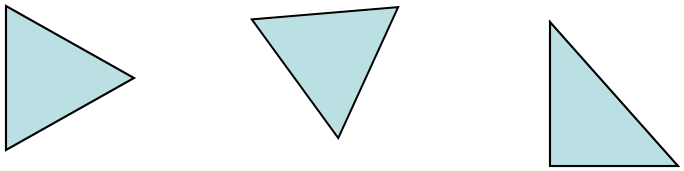
1. A number that stays the same when multiplied by 10.
2. A triangle with no sides parallel to the edge of your page.
3. A fraction that is equal to a whole number.
4. A hexagon with no lines of symmetry.
5. A symmetrical shape which is not regular.
6. A pair of numbers whose sum is greater than one of the numbers but less than the other

Comparing / Contrasting

In which ways are two items similar or the same?
How are they different from the third?

1. 7.69 7.74 7.75

2. 2, 4, 6, 8, … 2, 5, 8, 11, … 3, 5, 7, 9, …

3. 

4. 1:3 1:4 2:6

Additional Conditions

Give me an example of…

1. A number which has a remainder of 1 when divided by 2
   …and a remainder of 1 when divided by 3
   …and a remainder of 1 when divided by 5

2. A fraction which is greater than one half
   …whose numerator and denominator are both greater than 5
   …whose numerator and denominator are (not) multiples of the same number

3. A number which is 0.6 when rounded to 1 decimal place
   …and is 0.60 when rounded to 2 decimal places
   …and is 0.600 when rounded to 3 decimal places

4. A quadrilateral with at least two right angles
   …whose sides are not all the same length
   …which has reflective symmetry about at least one diagonal