

# QUESTION STEM EXAMPLES

Show me an example of...

- a fraction equivalent to a  $\frac{1}{4}$  ,  $\frac{1}{2}$  ?
- a sequence where the rule is to add on 5
- a multiple of 10? And another? And another?
- the same 'age difference' e.g. 10 & 32 etc.
- $\frac{1}{4}$ ,  $\frac{3}{8}$ , or  $\frac{1}{2}$  ?
- a multiple of 5 and another (could be a multiples of 2, 3, 4, 6, 10 )
- a number sequence going up in 6's (that goes up/down in steps of 2/5/10)
- $\frac{1}{2}$  of a shape,  $\frac{1}{4}$  of a shape
- an odd/even number
- an array divisible by 5
- $\frac{1}{2}$  of


- a division sum with an answer of 6
- an equivalent fraction e.g.  $\frac{2}{4} = \frac{5}{100}$
- a shape that when folded in  $\frac{1}{2}$  forms a triangle
- a pair of fractions with a total of 1? And another? And another?
- A repeated addition

Variations;

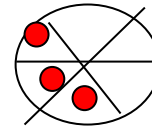
- Show me 43p as a decimal
- Show me how you can fold a Y4 square into quarters eights
- Show me another way of writing  $5 + 5 + 5 + 5$
- Show me that knowing your x 3 table helps you to recall multiples of 6

How can you change...

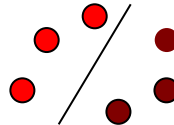
- How can you change  $\frac{2}{6}$  into  $\frac{1}{12}$ ?
- How can you change  $\frac{1}{2}$  into a decimal?
- How can you change a half into a quarter?
- How can you change ages to have a difference of, say 14?
- How can you change  $\frac{1}{2}$  into another fraction?
- How can you change  $\frac{4}{8}$  into a smaller fraction

## What is the same and what is different about...?

- $\frac{3}{4}$  and  $\frac{6}{8}$ ?  $\frac{2}{5}$  and  $\frac{1}{10}$ ?  $\frac{1}{8}$  and  $\frac{3}{8}$ ?
- $5+5+5$  and  $3 \times 5$ ?
- 3 groups of 5 and 5 groups of 3?



- $5 + 3 = 8$  and  $8 - 5 = 3$ ?
- Double 5 and half of 10?
- 42 and 61?



- $8 \times 4 = 32$  and  $80 \times 4 = 320$ ?
- $8 \times 4 = 32$  and  $32 \div 8 = 4$ ?
- $5 \times 6$  and  $6 \times 5$ ?  $4 \times 5$  and  $5 \times 4$ ?
- The numbers 5, 12, 20?
- 1, 4, 7, 10, 13, and 2, 5, 8, 11, 14, 17?

## Convince me that...

- $\frac{1}{2} = 0.5$
- If you fold your paper once, you always get halves
- 4 quarters make a whole
- $1 \frac{1}{2}$  is the same as 3 halves
- $2+2+2+2+2+2$  and  $6 \times 2$  give the same answer?
- $\frac{3}{6} = \frac{1}{2}$
- $3 \times 4 = 12$  and 12 divided by 3 = 4
- $3 \times 4 = 4 \times 3$
- $8 \times 40$  is ten times bigger than  $8 \times 4$
- multiplication can be done in any order?
- $5 \times 4 = 20$
- one half = two quarters
- $\frac{2}{20} = \frac{4}{40}$
- $4 \times 5 = 5 \times 4$  or  $4 \times 5 = 20$  or  $5 + 5 + 5 + 5 = 4 \times 5$
- 39 is not part of the sequence 0 5 10 15 20 25
- $\frac{3}{8}$  is less than  $\frac{1}{2}$ .
- 2 halves make a whole
- double 8 is 16
- 48 is in the 6 times table
- $\frac{2}{4}$  is the same as  $\frac{1}{2}$
- $4 \times 5$  is the same as  $5 \times 4$
- 20 is a multiple of 10
- numbers in the 2 x table are even
- a multiple of 2 is never odd

- 2 quarters are the same as 1 half
- there are 12 wheels on 3 cars?
- 42 is bigger than 24
- $2 + 2 + 2 + 2 + 2 + 2$  is the same as  $6 \times 2$
- 25 is a multiple of 5
- multiplication is the inverse of division
- a quarter of 16 is 4
- $6 \times 8$  is 48
- 502 is not a multiple of 5
- $1/5$  is the same as  $2/10$
- 40 is the next number in the sequence 10, 20, 30
- $12 \div 2 = 6$      $12 \div 6 = 2$
- halving is the inverse of doubling
- $5 \times 6 = 30$
- If one box holds 6 eggs, 7 boxes would hold 42 eggs?
- $1/2 + 1/2 = 1$ ,  $1/4 + 3/4 = 1$ ?
- a number is a multiple of 2, 5 or 10?

Is this sometimes, always or never true?

If sometimes, when?

- All multiples of 3 are multiples of 4
- A half is equal to 4.
- $1/10 + 1/10 = 1/20$
- All multiples of 3 are odd
- If you double a number the answer is even?
- $1/2$  a number is always even
- If you fold any shape in 2 will you get  $1/2$ 's of equal size?
- If you fold a shape in  $1/2$  and then  $1/2$  again, you always get quarters?
- Multiples of 6 are always even
- A quarter is smaller than a half
- In fractions equivalent to a half, the denominator is twice as big as the numerator?

What is wrong with the statement...?

How can you correct it?

- $31 - 9 = 23$
- $7 \times 5 = 34$
- $7 \times 5 = 12$
- $5/10 = 1/2 = 2/3$
- $1/2 + 3/4 = 1$