

Three Quick Questions

- 1 A 5p coin has a thickness of 1.6mm



Jake makes a tower of 5p coins worth 90p.
What is the height of the coins in cm?

- 2 Jamie has a number.

If I divide my number
by 5 I get 12



What answer does Jamie get if she divides
the same number by 15?

Explain your answer.

- 3 Here is a rule for generating a sequence.

Multiply the previous term
by 3 and subtract 4

The second term of the sequence is 5

Find the difference between the first
and fourth terms of the sequence.

Number Reasoning

1 Here is part of a multiplication grid.

| \times | 4 | 5 | 6 | 7 | 8 | 9 |
|----------|----|----|---|---|---|---|
| 4 | | 20 | | | | |
| 5 | 20 | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |

Shade in any other squares that have the same answer as the shaded square.

2



Sally multiplies a number by 100

Her answer has three digits.

The hundreds and ones digit are the same.

The sum of the digits is 10

What number could Sally have started with?

Are there any others?

Challenge!

The three little pigs went shopping.

The first little pig spent £23 on a bundle of straw and a stack of wood.

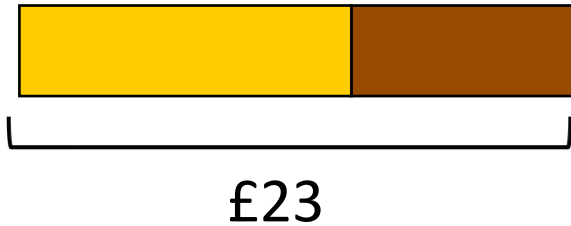
The second little pig spent £35 on a stack of wood and a pile of bricks.

The third little pig spent £42 on a bundle of straw and a pile of bricks.

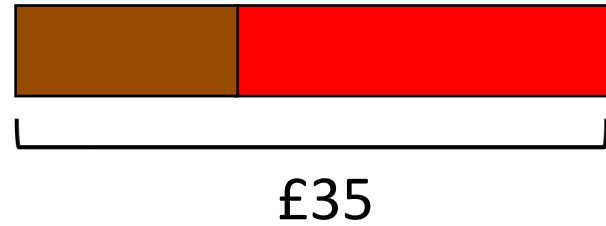
Use bar models and / or concrete manipulatives to work out how much each item cost (assuming the bundles, stacks and piles were the same size for each little pig)?

The three little pigs

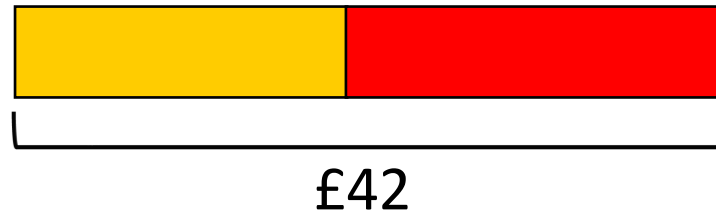
First little pig



Second little pig



Third little pig



How does this help solve the problem?

Is there more than one way to solve this?

Super Challenge!

In an office there are twice as many females as males.

$\frac{1}{4}$ of the females wear glasses.

$\frac{3}{8}$ of the males wear glasses.

84 people in the office wear glasses.

Work out the number of people in the office.