

Number Nest Weekly Challenge



Warm up

- How many 4 digit numbers can be made using the digits 3, 6, 9 and 9 exactly once?
- What is the third largest number that can be made by using the digits 2, 4, 6, 8 exactly once each?
- Find 37.5% of 400.
- What is the smallest positive whole number divisible by 1, 2, 3, 4 and 5?
- You are given one each of the coins 1p, 2p, 5p and 10p. How many different amounts of money can be made using some or all of the four coins?

Main challenge

Each shape in each question has a value that you need to work out from all the information given to you. Each shape has its own value in each question. E.g. because a square is 5 in one question it does not mean it would be 5 in another.

1.

$$\text{Crescent} - \text{Square} = 6$$

$$\text{Square} =$$

$$\text{Circle} + \text{Crescent} = 11$$

$$\text{Crescent} =$$

$$\text{Square} + \text{Crescent} = 14$$

$$\text{Circle} =$$

2.

$$\text{Triangle} + \text{Hexagon} = 4$$

$$\text{Triangle} =$$

$$\text{Hexagon} + \text{Crescent} = 2$$

$$\text{Crescent} =$$

$$\text{Hexagon} + \text{Crescent} = 3$$

$$\text{Hexagon} =$$



3. $\text{Red Hexagon} + \text{Pink Shape} = 2$ $\text{Red Hexagon} =$

$\text{Pink Shape} \times \text{Red Hexagon} = 50$ $\text{Pink Shape} =$

$\text{Pink Shape} + \text{Green Triangle} = \text{Red Hexagon}$ $\text{Green Triangle} =$

4. $\text{Orange Circle} + \text{Yellow Hexagon} = \text{Blue Square}$ $\text{Blue Square} =$

$\text{Orange Circle} \times \text{Blue Square} = 16$ $\text{Orange Circle} =$

$\text{Blue Square} \times \text{Blue Square} + \text{Yellow Hexagon} =$ $\text{Yellow Hexagon} =$

Challenge

$\text{Green Diamond} + \text{Blue Hexagon} = \text{Purple Square}$ $\text{Green Diamond} =$

$\text{Green Diamond} + \text{Blue Hexagon} + \text{Blue Hexagon} = 14$ $\text{Blue Hexagon} =$

$\text{Purple Square} + \text{Red Circle} = 5$ $\text{Purple Square} =$

$\text{Purple Square} - \text{Red Circle} - \text{Red Circle} = 6$ $\text{Red Circle} =$