

29.01.24

Number Nest Weekly Challenge



Warm up

- a) How many 4 digit numbers can be made using the digits 3, 6, 9 and 9 exactly once? **12**
- b) What is the third largest number that can be made by using the digits 2, 4, 6, 8 exactly once each? **8462**
- c) Find 37.5% of 400. **150**
- d) What is the smallest positive whole number divisible by 1, 2, 3, 4 and 5? **60**
- e) 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? **15**

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.

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

$$\text{Square} = 4$$

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

$$\text{Crescent} = 10$$

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

$$\text{Circle} = 1$$

2.

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

$$\text{Triangle} = 3$$

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











$$\text{Crescent} = 2$$

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













$$\text{Hexagon} = 1$$


















3.

 +  = 2	 = 10
 x  = 50	 = 5
 +  = 	 = 5

4.

 +  = 	 = 2
 x  = 16	 = 8
 x  +  = 	 = 4

Challenge

 +  = 	 = 6
 +  +  = 14	 = 4
 +  = 5	 = 10
 -  -  = 6	 = 2