

## Bronze

1a. (1, 12), (2, 6), (3, 4)

2a. False – 10 is not a factor of 15.

3a. 3

4a. 2 and 3

1b.

10	5	50
2	3	6
20	15	

2b. A = 9, B = 8, C = 14, D = 16

3b. Linda is incorrect. The factors of 15 are: 1, 3, 5, 15.

## Silver

5a. (2, 8), (4, 4)

The odd one out is (3, 6).

6a. False – 4 and 6 are not factors of 22.

7a. 4 and 6

8a. 3 and 9

4b.

7	6	42
4	6	24
28	36	

5b. A = 4, B = 5, C = 12, D = 24, E = 30

6b. Tommy is incorrect. 16 has got 5 different factors: 1, 2, 4, 8 and 16

## Gold

9a. (1, 32), (2, 16), (4, 8)

The odd one out is (5, 6).

10a. True

11a. 4 and 12

12a. 1, 2, 3, 4, 6, 9, 12, 18 and 36

7b.

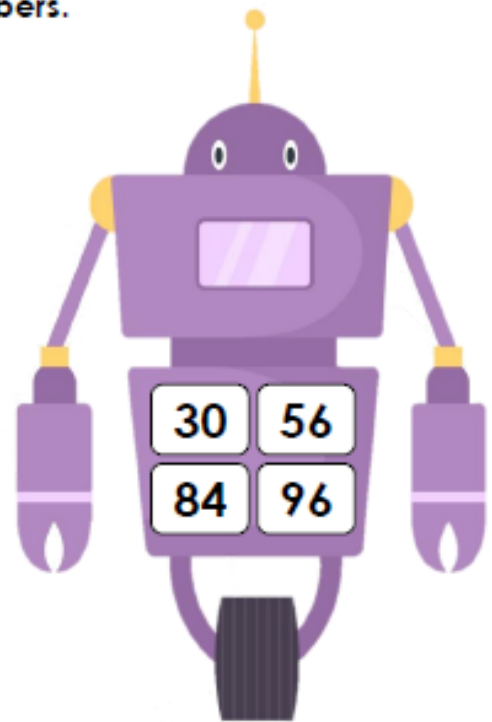
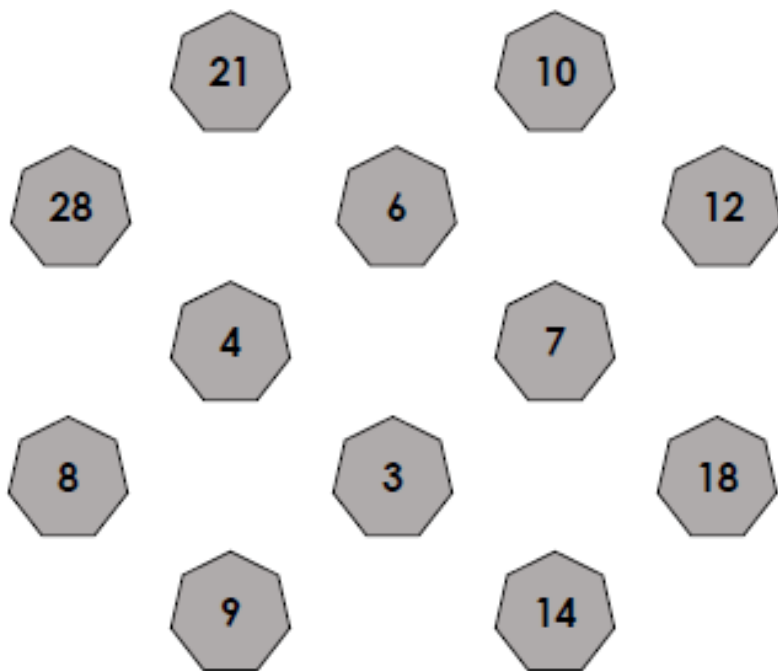
9	20	180
4	11	44
36	220	

8b. A = 20, B = 14, C = 7, D = 112, E = 56

9b. Ada is incorrect. 66 has got eight different factors: 1, 2, 3, 6, 11, 22, 33 and 66

## Challenge

1. Z the robot is malfunctioning and needs to be repaired! You must use six screws and each screw must be a factor of at least two of his numbers.



Investigate the screws that could be used to fix Z and place them in ascending order.

**Various answers, for example: 3, 4, 6, 7, 12, 14.**

2. With a partner, play the game below.

1. Lay the number cards face down and mix them around.
2. Use the spinner provided to choose a target number.
3. Take it in turns to flip two cards over.
4. If the numbers are a factor pair of the target number then the player keeps them.
5. The winner is the player with the most factor pairs



When you have found all of the factor pairs, spin the spinner and play again!

**Various answers, for example:**

**24: 6 x 4; 60: 5 x 12; 72: 4 x 18.**