

Use what you know about factors, multiples, squares and cubes to solve each problem.

1. James has 64 toy cars and is arranging them in equal rows.

For example, he could make 4 rows of 16 cars.

What other arrangements can he make?

2. James' brother Tom is arranging his own cuddly toys.

He makes rows of 4 cuddly toys with none left over.

He changes his mind and makes rows of 8 with none left over.

If he has more than 40 cuddly toys, but less than 60, how many could he have?

- 3.** Alice is using cube-shaped boxes to create a display for a shop window. She has exactly the right number of boxes to make either a square of boxes or a cube of boxes. How many boxes does she have?
- 4.** Katie's number is more than 90, but less than 210. It is 2 less than a cube number and 2 more than a square number. What is Katie's number?
- 5.** Sam's number is a square number less than 300. It is also the sum of two other square numbers. What could Sam's number be?