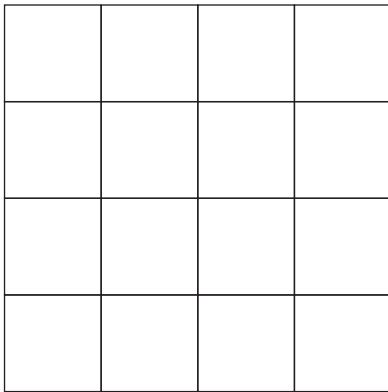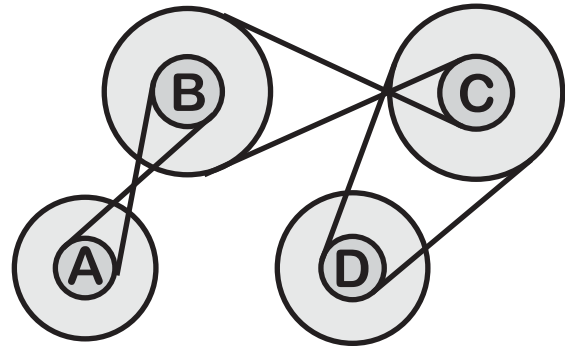1. In the grid below colour in four squares red, four blue, four yellow and four green so that no colour is repeated in a row, a column or diagonally.

4. The four pulleys below are connected by belts as shown. If pulley A turns clockwise, which direction would each of the other pulleys turn? (Clockwise or anticlockwise)



| Pulley | Direction of Rotation |
|--------|----------------------|
| A | Clockwise |
| B | |
| C | |
| D | |

2. Hervey had an assignment to write. It had taken him two hours to complete one-fifth of the assignment.
How much longer would it take Hervey to finish his assignment?

3. There were six players in a badminton tournament. Each player had to play each other player once and the top two players then played a final.
How many games were in the tournament?

5. James had a length of rope. He cut it in half and then cut each of these pieces into quarters.
(a) How many small pieces would James have?
(b) What fraction of the original length of rope was each of the small pieces?

**6.** Fiona wanted to make a drink using fruit syrup and soda water. She had a one litre bottle of fruit syrup and three litres of soda water.
Fiona mixed one tenth of the fruit syrup with half of the soda water.
How many litres of drink did she make?

**7.** It took William six minutes to run four laps of the school oval.
How many seconds did it take William to run each lap?

**8.** Freya took 12.6 seconds to run the 100 metre race. She beat Miffany by two-tenths of a second.
What was Miffany's time to run the race?

**9.** Danny had a bag that contained a number of Gumbledits and Marokes. A Gumbledit weighs 1.62 kg and a Maroke weighs 1.76 kg.
The total mass of the Gumbledits and Marokes in Danny's bag was 10 kg.
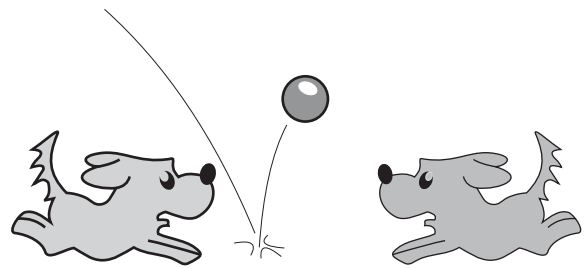How many Gumbledits and Marokes were in the bag?

Gumbledits ☐ Marokes ☐

**10.** Two dogs, Pixie and Ziggy, were sitting next to each other. At the same time they started to run in opposite directions. Pixie ran at 2 metres per second and Ziggy ran at 3 metres per second.
(a) How far apart would they be after 5 seconds of running?

(b) When they were 60 metres apart they turned around and ran back towards each other. How long would it take them to get back together?

**11.** A snail was sliding up a 42 cm high wall. The snail could slide 10 cm in 5 minutes but then had to rest for 1 minute. When it rested it slid back down the wall 2 cm. How long would it take the snail to get to the top of the 42 cm wall?