SPACE Maths Word Problems – Lower Key Stage 2 – Year 4

1. Astronauts counted 136 stars in the sky on the first night of their mission and 189 stars on the second night. How many stars did they count in total over the two nights?

2. A rocket has 450 litres of fuel at the start of a journey. After the first stage of the trip, 175 litres have been used. How much fuel is left?

3. A space station receives 4 crates of supplies each week. If each crate contains 12 packets of food, how many packets of food does the space station receive in 4 weeks?

4. A spacecraft can carry 36 astronauts. If there are 4 sleeping quarters on board, how many astronauts will sleep in each quarter if they are shared equally?

5. On a mission, ⅔ of the spaceship's cargo bay is filled with equipment. If the total cargo bay space is 90 cubic metres, how much space is being used for the equipment?

6. A spaceship travels 35.5 km in the first hour and 42.3 km in the second hour. How far does the spaceship travel in total after two hours?

7. A small space robot weighs 8.5 kg. Another robot weighs 4.3 kg more. How much does the second robot weigh?

8. It takes 7 hours for a space probe to travel from one moon to another. How long will it take if the space probe makes 3 trips?

9. A rectangular solar panel on a spaceship is 6 metres long and 4 metres wide. What is the area of the solar panel?

10. A square landing pad on the Moon has sides that are 9 metres long. What is the perimeter of the landing pad?

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MARK SCHEME

1. Astronauts counted 136 stars in the sky on the first night of their mission and 189 stars on the second night. How many stars did they count in total over the two nights?
   136 + 189 = 325 stars.

2. A rocket has 450 litres of fuel at the start of a journey. After the first stage of the trip, 175 litres have been used. How much fuel is left?
   450 – 175 = 275 litres of fuel left.

3. A space station receives 4 crates of supplies each week. If each crate contains 12 packets of food, how many packets of food does the space station receive in 4 weeks?
   4 × 12 = 48 packets of food per week.
   In 4 weeks: 48 × 4 = 192.

4. A spacecraft can carry 36 astronauts. If there are 4 sleeping quarters on board, how many astronauts will sleep in each quarter if they are shared equally?
   36 ÷ 4 = 9 astronauts per sleeping quarter.

5. On a mission, ⅔ of the spaceship's cargo bay is filled with equipment. If the total cargo bay space is 90 cubic metres, how much space is being used for the equipment?
   2/3 × 90 = 60 cubic metres.

6. A spaceship travels 35.5 km in the first hour and 42.3 km in the second hour. How far does the spaceship travel in total after two hours?
   35.5 + 42.3 = 77.8km.

7. A small space robot weighs 8.5 kg. Another robot weighs 4.3 kg more. How much does the second robot weigh?
   8.5 + 4.3 = 12.8kg.

8. It takes 7 hours for a space probe to travel from one moon to another. How long will it take if the space probe makes 3 trips?
$7 \times 3 = 21$ hours.

9. A rectangular solar panel on a spaceship is 6 metres long and 4 metres wide. What is the area of the solar panel?
Area $= 6 \times 4 = 24\, m^2$.

10. A square landing pad on the Moon has sides that are 9 metres long. What is the perimeter of the landing pad?
Perimeter $= 4 \times 9 = 36$ metres.