Ratio and rate

Name: _____ **Date:** _____

Remember: A **ratio** compares amounts of the same kind; a **rate** compares different kinds (km per hour). Divide both sides by the same number: **the ratio stays the same**, just written smaller.

1. What is the ratio of red beads to blue beads?



Answer: _____

2. Simplify the ratio 6 : 8.

Answer: _____

3. Simplify the ratio 12 : 4.

Answer: _____

4. A car drives 240 km in 3 hours at the same speed. How many kilometres does it drive per hour?

Answer: _____

5. 5 kg of apples cost R85. What does 1 kg cost?

Answer: _____

6. Share R60 between Sipho and Naledi in the ratio 1 : 2.

Answer: _____

7. A recipe uses 2 cups of flour for 12 pancakes. How many cups are needed for 36 pancakes?

Answer: _____

8. A pack of 6 pens costs R42. A pack of 4 pens costs R30. Which pack is the better buy?

Answer: _____

9. A tap drips 3 litres of water per hour. How many litres is that in 24 hours?

Answer: _____

10. A class has 15 girls and 12 boys. Write the ratio of girls to boys in simplest form.

Answer: _____

11. Share 35 sweets in the ratio 3 : 4.

Answer: _____

12. Petrol costs R22 per litre. What do 40 litres cost?

Answer: _____

13. A taxi travels 150 km on 15 litres of fuel. How far does it travel on 40 litres?

Answer: _____

14. Juice is mixed: 1 part concentrate to 4 parts water. How many ml of concentrate are needed for 2 litres of juice?

Answer: _____

15. At an animal shelter the ratio of cats to dogs is 2 : 5. There are 35 animals. How many cats and how many dogs are there?

Answer: _____

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I got _____ **out of 15** ⭐⭐⭐

Memorandum · Ratio and rate

1. **3 : 5**
   count: 3 red and 5 blue; red comes first
2. **3 : 4**
   divide both by 2
3. **3 : 1**
   divide both by 4
4. **80 km per hour**
   240 ÷ 3 = 80
5. **R17**
   85 ÷ 5 = 17
6. **Sipho R20; Naledi R40**
   1 + 2 = 3 parts; 60 ÷ 3 = 20
7. **6 cups**
   36 ÷ 12 = 3; 3 × 2 = 6
8. **the pack of 6**
   42 ÷ 6 = R7,00 per pen; 30 ÷ 4 = R7,50 per pen
9. **72 litres**
   3 × 24 = 72
10. **5 : 4**
    15 : 12, divide both by 3
11. **15 and 20**
    7 parts; 35 ÷ 7 = 5
12. **R880**
    22 × 40 = 880
13. **400 km**
    150 ÷ 15 = 10 km per litre; 10 × 40 = 400
14. **400 ml**
    2 litres = 2 000 ml; 1 + 4 = 5 parts; 2 000 ÷ 5 = 400
15. **10 cats and 25 dogs**
    7 parts; 35 ÷ 7 = 5

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