Word problems: a plan for every sum

Free Extra Maths Class · Grade 7

Name: _____

Remember: Underline what is asked → choose the operation → write a number sentence → work it out → write the unit.
Why? The number sentence is the story in maths language; the unit and an estimate test your answer.

1. 1 512 pencils are shared equally among 36 classes. How many pencils does each class get?

2. A school concert starts at 18:50 and ends at 21:15. How long does the concert last?

3. Ayesha cycles 3,75 km every day. How far does she cycle altogether in 4 days?

4. Farmer Jansen plants maize on $\frac{5}{6}$ of his 48 ha field. How many hectares are maize?

5. There are 480 spectators at a netball match. 45% are children. How many children?

6. A machine caps 18 bottles per minute. How many minutes does it need for 450 bottles?

7. A camping tent costs R1 860. It is marked down by 20%. What does Liam pay for the tent?

8. A bakkie may carry 1,2 t. It carries 64 crates of 12,5 kg each. How many more kg may it carry?

9. In a choir, boys : girls = 4 : 5. There are 35 girls. How many children are in the choir?



10. A fence all around this garden costs R65 per metre. What does the fence cost?

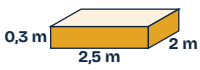


11. Zanele saves R50, R65, R80, … in weeks 1, 2, 3, … How much does she save in week 10?

12. Grandpa cuts 25 m of wire into 80 cm pieces. How many full pieces, and how many cm left?

13. Aunt Mpho invests R4 500 at 7,5% simple interest per year. After how many years has she earned R1 350 interest?

14. A 0,05 m³ bag of sand costs R38. How many bags fill the sandpit, and what is the cost?



15. Kabelo buys 50 trays of seedlings at R16 each. He sells only 45 trays, at R24 each. Calculate his profit, and write it as a percentage of the cost price.

I got _____ **out of 15** ☆ ☆ ☆

Memorandum

Word problems: a plan for every sum

Other correct methods are also right.

1. 42 pencils

Asked: pencils per class. **Number sentence:** 1 512 ÷ 36 = ?

36 × 40 = 1 440; 1 512 − 1 440 = 72; 72 ÷ 36 = 2; 40 + 2 = 42 → **42 pencils**

2. 2 h 25 min

Asked: how long the concert lasts. **Number sentence:** 21:15 − 18:50 = ?

10 min (to 19:00) + 2 h (to 21:00) + 15 min → **2 h 25 min**

3. 15 km

Asked: total distance. **Number sentence:** 3,75 × 4 = ?

3,75 × 2 = 7,5; 7,5 × 2 = 15 → **15 km**

4. 40 ha

Asked: $\frac{5}{6}$ of 48 ha. **Number sentence:** $\frac{5}{6}$ × 48 = ?

48 ÷ 6 = 8; 8 × 5 = 40 → **40 ha**

5. 216 children

Asked: 45% of 480. **Number sentence:** $\frac{45}{100}$ × 480 = ?

40% = 192; 5% = 24; 192 + 24 = 216 → **216 children**

6. 25 minutes

Asked: number of minutes. **Number sentence:** 450 ÷ 18 = ?

18 × 25 = 450 → **25 minutes**

7. R1 488

Asked: price after the discount. **Number sentence:** R1 860 − 20% of R1 860 = ?

20% of R1 860 = R372; R1 860 − R372 = R1 488 → **R1 488**

8. 400 kg

Asked: how many more kg. **Number sentence:** 1 200 − 64 × 12,5 = ?

64 × 12,5 = 800 kg; 1,2 t = 1 200 kg; 1 200 − 800 = 400 → **400 kg**

9. 63 children

Asked: number of children. **Number sentence:** 35 ÷ 5 × (4 + 5) = ?

35 ÷ 5 = 7 per part; 4 + 5 = 9 parts; 9 × 7 = 63 → **63 children**

10. R3 055

Asked: cost of the fence. **Number sentence:** 2 × (14,5 + 9) × R65 = ?

perimeter = 2 × 23,5 = 47 m; 47 × R65 = R3 055 → **R3 055**

11. R185

Asked: amount in week 10 (R15 more each week). **Number sentence:** R50 + 9 × R15 = ?

9 × R15 = R135; R50 + R135 = R185 → **R185**

12. 31 pieces; 20 cm left

Asked: full pieces and the remainder. **Number sentence:** (25 × 100) ÷ 80 = ?

25 m = 2 500 cm; 2 500 ÷ 80 = 31 rem 20 → **31 pieces; 20 cm left**

13. 4 years

Asked: number of years. **Number sentence:** R1 350 ÷ (7,5% of R4 500) = ?

per year: R4 500 × 7,5 ÷ 100 = R337,50; R1 350 ÷ R337,50 = 4 → **4 years**

14. 30 bags; R1 140

Asked: number of bags and the cost. **Number sentence:** (2,5 × 2 × 0,3) ÷ 0,05 = ?

V = 1,5 m³; 1,5 ÷ 0,05 = 30 bags; 30 × R38 = R1 140 → **30 bags; R1 140**

15. R280; 35%

Asked: profit and profit as %. **Number sentence:** (45 × R24) − (50 × R16) = ?

R1 080 − R800 = R280; $\frac{280}{800}$ × 100 = 35% → **R280 profit; 35%**