

4/03/21

(Starter) O LO: Can I start to read Roman numerals to 500?

(Main) O LO: Can I answer word problems involving finding percentages of amounts?

For guidance on the activities for the lesson today, click the link titled 'Maths - weekly input'.

Starter:

Can you work out what the Roman Numerals below are? Use the guidance below to help you:

I	V	X	L	C	D	M
1	5	10	50	100	500	1000

Write the number...

$$\text{III} = 3$$

$$\text{XX} = 20$$

$$\text{CCC} = 300$$

$$\text{MC} = 1100$$

$$\text{LXV} = 65$$

When a numeral is written after a larger numeral: it is added.

$$\text{IV} = 4$$

$$\text{XCIX} = 99$$

$$\text{XC} = 90$$

$$\text{CD} = 400$$

$$\text{XXXIX} = 39$$

When a numeral is written before a larger numeral: it is subtracted.


- |                    |                  |                   |
|--------------------|------------------|-------------------|
| 1. VII = _____     | 2. XVI = _____   | 3. V = _____      |
| 4. III = _____     | 5. IV = _____    | 6. XV = _____     |
| 7. IX = _____      | 8. LXXVI = _____ | 9. XXVII = _____  |
| 10. LXXXVI = _____ | 11. VIII = _____ | 12. LXIII = _____ |
| 13. LXVI = _____   | 14. X = _____    | 15. XXXI = _____  |


Main:


Complete the word problems on finding percentages below. Remember to underline the key words if you need to and show your working!


1. A shirt costing £20 has 10% off in a sale. How much would you pay for the shirt?
2. A sofa costing £400 has 25% off in a sale. How much would you pay for the sofa?
3. A family meal costs £55 and your parent leaves a 10% tip. How much do they leave?
4. Tim measure 120cm in height. His brother Phil is 25% shorter. How tall is Phil?
5. Ben and Sam have a bag containing 48 sweets. Whilst watching a film they eat 75% of the sweets. How many sweets are left?


6. Trainers are usually £30 but this week they have been reduced by 10%. What is the price of the trainers this week?
  
7. Mr Smith wants to buy a new car. He finds a car he likes for £5500 and then manages to negotiate 10% off the price. How much does Mr Smith pay for his new car?
  
8. In 2012 Lucy did a week-long survey to record the number of birds in her garden. Over the week she recorded 120 birds. In 2013 she carried out another survey, but this time she counted 25% **more** birds.
  - a. How many birds did Lucy count in 2013?
  
9. There are 300 pupils in a school and 75% of the pupils are boys. **How many** girls are there in the school?
  
10. Bob's bedroom has an area of  $24\text{m}^2$ . The area of his sister's room is 75% bigger. What is the area of his sister's room?


 Martha has £680 in her savings account. Tom has 10% more money than Martha. How much money does Tom have?


 50% of Year 6 pupils pass the Maths Arithmetic paper. There are 30 children in the class. How many children pass the maths paper?


 Televisions are reduced by 10% in the sale. A television costs £380 before the discount. How much does the television now cost?


 A pair of trousers costs £35 and a hoodie costs £40. Both items are reduced in the sale by 25%. Billy buys them both. How much does he spend?


 A coat costs £56 it is reduced in the sale by 15%. How much does it cost now?

 Tommy saves £860 in his account. He spends 20% on clothes and 35% on trainers. How much money does he have left?

 Would you rather have 10% of £5 or 20% of £3.00? Explain your answer.

 Nike Air Huarache trainers are 35% off in the sale. They are now £58.50. How much were they originally?

 Would you rather sit in a traffic jam for 33% of 2 hours or 44% of 1 hour 40 minutes? Explain your answer.

 Which of these is the odd one out?

- 40% of 900
- 90% of 400
- 60% of 850
- 25% of 1440

Explain your answer.

## Answers



Martha has £680 in her savings account. Tom has 10% more money than Martha. How much money does Tom have? **£748**



50% of Year 6 pupils pass the Maths Arithmetic paper. There are 30 children in the class. How many children pass the maths paper? **15 pupils**



Televisions are reduced by 10% in the sale. A television costs £380 before the discount. How much does the television now cost? **£344**



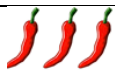
A pair of trousers costs £35 and a hoodie costs £40. Both items are reduced in the sale by 25%. Billy buys them both. How much does he spend? **£56.25**



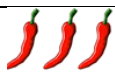
A coat costs £56 it is reduced in the sale by 15%. How much does it cost now? **£47.60**



Tommy saves £860 in his account. He spends 20% on clothes and 35% on trainers. How much money does he have left? **£387**



Would you rather have 10% of £5 or 20% of £3.00? Explain your answer. **10% of £5 = 50p but 20% of £3 = 60p so I'd rather have 20% of £3 as it is a greater amount.**



Nike Air Huarache trainers are 35% off in the sale. They are now £58.50. How much were they originally?

**£58.50 is 65% of the price.**

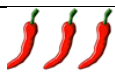
**10% = £9 (58.50 ÷ 6.5)**

**5% = £4.50**

**9 + 9 + 9 + 4.5 = 31.5**

**58.50 + 31.50 = 90**

**The trainers were £90 originally.**



Would you rather sit in a traffic jam for 33% of 2 hours or 44% of 1 hour 40 minutes? Explain your answer.

33% of 2 hours = 39.6 mins but 44% of 1 hour 40 mins is 44 mins so I'd rather sit in traffic for 33% of 2 hours because it is a shorter amount of time.



Which of these is the odd one out?

40% of 900

90% of 400

60% of 850

25% of 1440

Explain your answer.

60% of 850 = 510 the rest all equal 360.