

Number Nest Weekly Challenge

1. Tom is saving money for a new computer game. He currently has £15.50 in his savings. He saves £13 per week from his allowance, but he spends £4.90 of this on sweets every Saturday. How many weeks will it take him to save up for the computer game which costs £89.99?

$$\text{Tom needs to save: } £89.99 - £15.50 = £74.49$$

$$\text{Per week Tom saves: } £13 - £4.90 = £8.10$$

$$9 \times £8.10 = £72.90 \text{ and } 10 \times £8.10 = £81$$

It takes Tom 10 weeks to save up.

2. Tom uses the money he had left over from buying his computer game to buy some sweets. How many packets of sweets could he buy for 92p?

$$£81 - £74.49 = £6.51$$

$$92\text{p} \times 7 = £6.44$$

Tom can buy 7 packets of sweets.

3. In October it is Tom's birthday. He held a party and seventeen guests attended. Each person gave some money to Tom for his birthday. His brother gave £20 whilst his best friend gave £110. How much money would every other guest (on average) need to have given, for Tom to have enough money to buy the latest iPhone which cost £925?

$$£925 - £110 - £20 = £795$$

$$795 \div 15 = £53$$

Each guest would need to give £53 to Tom for him to be able to buy the latest iPhone.

4. Tom buys his new iPhone on 17th October. On the 14th November, he dropped it and had to pay £99.99 for a new screen. After this, he decided to take out some insurance, so that he didn't have to pay again if it broke. He found two companies that offer insurance. Lovephones insurance offered an annual one-off payment of £96, whereas Cover Me insurance offered monthly payments of £7.99.

a) Which insurance company offered the cheapest cover for a year?

$$\text{Lovephones} = £96$$

$$\text{Cover Me} = £7.99 \times 12$$

$$= (£8 \times 12) - 0.12$$

$$= £95.88$$

Cover Me would offer the cheapest cover.



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b) How much cheaper is this cover than the cost of a new screen?

$$£99.99 - £95.88 = £4.11$$

Cover Me is £4.11 cheaper than the new screen.

c) Lovephone introduced a deal for new customers which included a 5% discount for signing up. Which company was better value now? How much cheaper was it?

$$10\% \text{ of } £99 = £9.90 \text{ therefore } 5\% \text{ of } £99 = £4.95$$

$$£99 - £4.95 = £94.05$$

$$£95.88 - £94.05 = £1.83$$

Lovephone insurance is better value because it is £1.83 cheaper.



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