

Spooky Maths Challenge: Max and Zara's Halloween Calculations

Learning objective: To apply Year 6 mathematical skills including ratio, percentage, profit, and measurement within a seasonal context.

Use these flashcards to test your mental maths and problem-solving skills. Remember to show your working out for multi-step problems.

Max the monkey is selling 40 spider-web decorations. If 15% are faulty and cannot be sold, how many decorations does he have left to sell?

34 decorations ($40 \times 0.15 = 6$ faulty; $40 - 6 = 34$).

Zara the zebra is mixing orange paint for a spooky mural. She uses a ratio of 3 parts red to 2 parts yellow. If she uses 12 litres of red paint, how many litres of yellow paint does she need?

8 litres ($12 \div 3 = 4$; $4 \times 2 = 8$).

A shop sells a bag of pumpkin sweets for £2.50. If the shopkeeper bought them for £1.80, what is the total profit made on 10 bags?

£7.00 (£0.70 profit per bag $\times$ 10).

Pip the caterpillar is measuring the length of a 'giant' earthworm. It is 145mm long. How many centimetres is this?

14.5cm.

At the Halloween party, there are 24 children. $\frac{3}{8}$ of the children are wearing ghost costumes. How many children are NOT wearing ghost costumes?

15 children ($24 \div 8 = 3$; $3 \times 3 = 9$ ghosts; $24 - 9 = 15$).

Nova the owl sees 12 bats on Monday, 15 on Tuesday, and 18 on Wednesday. What is the mean number of bats seen per night?

15 bats ($12 + 15 + 18 = 45$; $45 \div 3 = 15$).

A bag of 50 toffee apples costs £15.00. How much does one toffee apple cost in pence?

30p ($£15.00 \div 50 = £0.30$).