Calculator

2. (a) Simplify  $(x^2)^4$ 

(b) Simplify  $18x^2y^5 \div 3xy^2$ 

1. Cas bought a house for £280000. In the first year the house price increased by 4%. In the second year the house decreased by 2%. In the third year the house increased by 5%.

Work out the value of the house at the end of 3 years. (3 mark	Vork out the value of the house at the end of 3 years.	(3 marks)
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3. (a) Find the highest common factor (HCF) of 56 and 70 (2 marks)

(b) Find the lowest common multiple (LCM) of 56 and 70 (2 marks)



(2 marks)

(1 mark)

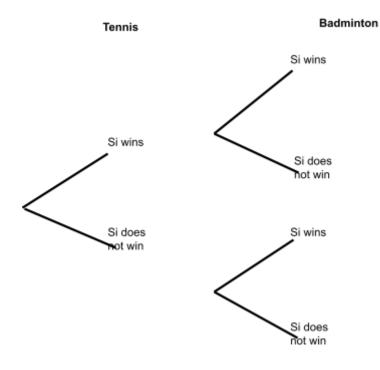
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Calculator

4. Si is going to play one tennis match and one badminton match. The probability that he will win the tennis match is  $\frac{4}{7}$ .

The probability that he will win the badminton match is  $\frac{3}{5}$ 

- (a) Complete the probability tree diagram
- (b) Work out the probability that Si will win both matches.



5. Aishu has some sweets.

Brian has twice as many sweets as Aishu. Cas has 5 more sweets than Brian.

In total they have 65 sweets. How many sweets does Cas have? (3 marks)

(2 marks)

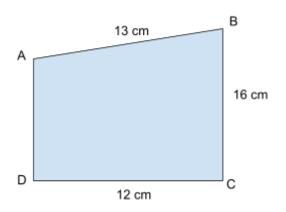
(2 marks)

Calculator

6. Here are the first five terms of a sequence.

32	28	24	20	16	
( )		0		in the sequence ce? Give a reason for your answer.	(1 mark) (1 mark)

7. ABCD is a trapezium. Calculate the length AD.



8. A circle has a diameter of 17cm. Work out the area of the circle. Give your answer correct to 1 decimal place. (2 marks)

(3 marks)

Calculator

9. (a) y is an integer such that  $-4 \le y \le 3$ . Write down all the possible values of y. (2 marks)

(b) Solve  $4x + 7 \le x + 22$ 

10. The total surface area of a cube is 294 cm<sup>2</sup>. Work out the volume of the cube.

(3 marks)

11. A piece of wood has a mass of 18.5 grams and a volume of 20 cm<sup>3</sup>. Work out the density of the piece of wood in grams / cm<sup>3</sup>. (3 marks)

12. Julie drove 50 miles in 50 minutes. What speed was Julie driving? Give your answer in miles per hour. (2 marks)

( / 36 marks)



(2 marks)