



Aberdare Community School
Mathematics Department

WJEC GCSE

Foundation – Non Calculator
Number

Product of prime factors

Name:

Set:

Date:

Teacher:

17. (a) Express 360 as a product of prime numbers in index form.

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[3]

- (b) Explain why $2^5 \times 3^4$ is **not** a perfect square.

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18. (a) Express 1323 as a product of prime numbers in index form.

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(b) Write down the least whole number by which 1323 should be multiplied to make the result a perfect square.

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18.

(b) Express 126 as a product of prime numbers using index notation.

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[3]

18. (a) Express 360 as a product of prime numbers in index form.

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- (b) Explain why $2^5 \times 3^4$ is **not** a perfect square.

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10. Express 525 as a product of prime numbers using index notation.

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18. (a) Explain how you know that 24 is **not** a square number.

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(b) Express 112 as a product of prime numbers in index form.

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11. (a) Express 112 as a product of prime numbers in index form.

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(b) Explain how you know that 32 is **not** a square number.

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15. (a) Find the highest common factor of 30 and 75.

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- (b) Find the lowest common multiple of 6 and 21.

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13. (a) Express 140 as a product of prime numbers in index form.

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- (b) The number 126 can be expressed as $2 \times 3^2 \times 7$. Using this fact and your answer to (a), write down the Highest Common Factor (HCF) of the numbers 140 and 126.

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(b) Write 1200 as a product of prime factors using index notation.

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13. (a) Write 3600 as a product of prime factors using index notation.

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16. (a) Express 936 as a product of prime numbers in index form.

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(b) Explain why 50 is not a perfect square number.

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13. (a) Express 150 as a product of prime numbers in index form. [3]

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(b) What is the smallest positive whole number that 150 can be multiplied by to make a perfect square? [1]

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(c) Express 396 as a product of prime numbers in index form.

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END OF PAPER