| 1 | Work out the value | of 2 ⁴ | | | | | | Summer 20 | 017 Paper 1 Q1 |
|---|---------------------------|-------------------|--------------|---------------|-----------|----------|----------|--------------|-----------------|
| - | ,, 0111 0 00 0110 , 01100 | 51 2 | | | | | | | |
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| | | | | | | | | | |
| | | | | | | (Total f | or Ques | stion 1 is 1 | mark) |
| _ | | | | | | | | |)18 Paper 2 Q3 |
| 2 | Work out the value | of 35 | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | (Total f | or Ques | stion 2 is 1 | mark) |
| | | - | | | | | | | 019 Paper 2 Q5 |
| 3 | Find the value of 6 | 3 | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | (Total f | for Que | stion 3 is 1 | mark) |
| | | | | | | | | Summer 20 |)19 Paper 3 Q4 |
| 4 | Here is a list of num | | 0 | 10 | 1.5 | 27 | 20 | 40 | |
| | From the list, write | 6 down all | 9 the num | 10 | 15 | 27 | 30 | 40 | |
| | From the fist, write | down an | ine num | ideis iliai a | ire power | 8 01 3 | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | (Total f | for Ques | stion 4 is 1 | mark) |
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- 5 $p^3 \times p^x = p^9$
 - (a) Find the value of x.

 $x = \dots (1)$

$$(7^2)^y = 7^{10}$$

(b) Find the value of y.

 $y = \dots$ (1)

 $100^a \times 1000^b$ can be written in the form 10^w

(c) Show that w = 2a + 3b

(2)

(Total for Question 5 is 4 marks)

| 6 | Work out the value of | $\frac{3^7 \times 3^{-2}}{3^3}$ | Autumn 2018 Paper 1 Q20 |
|---|---------------------------------------|---------------------------------|--|
| 7 | (a) Simplify $m^3 \times m^4$ | | (Total for Question 6 is 2 marks) Summer 2018 Paper 2 Q20 |
| | (b) Simplify $(5np^3)^3$ | | (1) |
| | (c) Simplify $\frac{32q^9r^4}{4q^3r}$ | | (2) |
| | | | (2) (Total for Question 7 is 5 marks) |
| | | | |

| 8 (a) Simplify $(p^2)^5$ | Autumn 2019 Paper 1 Q26 |
|------------------------------------|-----------------------------------|
| - (-) ~p; (P) | |
| | |
| (b) Simplify $12x^7y^3 \div 6x^3y$ | (1) |
| (b) Simpiny 12x y · 0x y | |
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| | |
| | (Total for Organian 9 is 2 more) |
| | (Total for Question 8 is 3 marks) |
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| 9 | (a) Simplify $n^3 \times n^5$ | Summer 2020 Paper 3 Q23 |
|---|------------------------------------|-------------------------|
| | | |
| | | |
| | | |
| | | (1) |
| | (b) Simplify $\frac{c^3d^4}{c^2d}$ | |
| | c-a | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | (2) |
| | 5x | (2) |
| | (c) Solve $\frac{5x}{2} > 7$ | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | (2) |
| | (Total for Que | stion 9 is 5 marks) |
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| 10 (a) Simplify $c^5 \div c^2$ | Autumn 2021 Paper 2 Q20 |
|---------------------------------------|------------------------------------|
| (L) C:1:C (14)3 | (1) |
| (b) Simplify $(d^4)^3$ | |
| | (1) |
| | (Total for Question 10 is 2 marks) |
| 11 Simplify $(2^{-5} \times 2^8)^2$ | Autumn 2022 Paper 1 Q21 |
| Give your answer as a power of 2 | |
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| | (Total for Question 11 is 2 marks) |
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