INDICES

Pearson Edexcel - Tuesday 6 November 2018 - Paper 1 (Non-Calculator) Foundation Tier

1.

20 Work out the value of $\dfrac{3^7 \times 3^{-2}}{3^3}$

....

(Total for Question 20 is 2 marks)

Pearson Edexcel - Thursday 7 June 2018 - Paper 2 (Calculator) Foundation Tier

2.

20 (a) Simplify $m^3 \times m^4$

....

(1)

(b) Simplify $(5np^3)^3$

....

(2)

(c) Simplify $\dfrac{32q^9r^4}{4q^3r}$

....

(2)

(Total for Question 20 is 5 marks)

3.

21 $p^3 \times p^x = p^9$

(a) Find the value of x.

$x = $ ....

(1)

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

(b) Find the value of y.

$y = $ ....

(1)

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

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

(2)

(Total for Question 21 is 4 marks)

4.

10 (a) Write $7 \times 7 \times 7 \times 7$ as a power of 7.

(a) .... [1]

(b) Complete this working to write 4^3 as a power of 2.

$4^3 = 4 \times 4$ ....

so $\quad 4^3 = 2 \times 2 \times 2 \times$ ....

so $\quad 4^3 =$ .... [2]

(c) Write these numbers in order, starting with the largest.

$8.1 \times 10^1 \qquad 1.02 \times 10^3 \qquad 9.83 \times 10^{-2} \qquad 3 \times 10^2$

(c) .... , ... , ... , ... [1]
$\qquad\qquad$ *largest*

OCR Tuesday 13 June 2017 – Morning (Calculator) Foundation Tier

5.

3 **(a)** Find the value of y.

$$5 \times 5 \times 5 \times 5 \times 5 \times 5 \times 5 = 5^y$$

(a) $y =$ .... [1]

(b) Find the values of z.

$$z^2 = 196$$

(b) $z =$ .... or $z =$ .... [2]

AQA Tuesday 21 May 2019 – Morning (Non-Calculator) Foundation Tier

6.

23 Work out the value of $(3^{12} \div 3^5) \div (3^2 \times 3)$

[3 marks]

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Answer _____

AQA Thursday 24 May 2018 – Morning (Non-Calculator) Foundation Tier

7.

17 a is a negative odd number.

Circle the words that describe a^2

[1 mark]

negative and odd   negative and even

positive and odd   positive and even

AQA Tuesday 13 June 2017 Morning– Morning (Calculator) Foundation Tier

8.

15   Show that there are **exactly** five 3-digit cube numbers.

[3 marks]

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9.

21   When $x^2 = 16$ the **only** value that x can be is 4

Is this true or false?

Tick a box.

[1 mark]

True ☐   False ☐

Reason _____

_____

_____