



Lite GCSE Maths

Rules of Indices

Name: _____

Class: _____

Author:

Date:

Time: 28

Marks: 26

Comments:

Q1. (a) Simplify $m^3 \times m^5$

Answer

(1)

(b) Simplify $\frac{m^4}{m^6}$

Answer

(1)

(c) Simplify fully $\frac{\sqrt{\pi a^3}}{\sqrt[3]{4\pi a}}$

.....
.....

Answer

(2)

(Total 4 marks)

Q2. (a) Work out $4^{\frac{1}{2}} \div 6^{-2}$

.....
.....

Answer

(3)

(b) Write $1.\dot{3}\dot{8}$ as an improper fraction.

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.....
.....

Answer

(2)

(Total 5 marks)

Q3. Evaluate $25^{\frac{1}{2}} \times 10^{-2}$

Give your answer as a fraction in its simplest form.

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.....
.....

Answer

(Total 3 marks)

Q4. $x^a \times x^b = x^7$

$$(x^a)^b = x^{10}$$

Work out the values of a and b .

.....
.....
.....
.....

Answer $a = \dots\dots\dots$, $b = \dots\dots\dots$

(Total 3 marks)

Q5. (a) Write down the value of 11^0

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Answer

(1)

(b) Find the value of $8^{\frac{2}{3}}$

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.....

Answer

(2)

(c) Simplify $6^{-2} \times 144^{0.5}$

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.....
.....
.....

Answer

(3)
(Total 6 marks)

Q6. Evaluate

(a) $36^{\frac{1}{2}} \times 4^{-1}$

.....

Answer

(3)

(b) $1000^{-\frac{2}{3}}$

.....
.....
.....

Answer

(2)
(Total 5 marks)

