Indices

ACMNA182 - Assessment

Name: _____

7 **8** 9 10 11 12

Navigator   Assessment   Student   25 min

Question: 1

What does 6^4 mean?

a)   6+6+6+6   b)   4×6   c)   4×4×4×4×4×4   d)   6×6×6×6   e)   4×(6+6+6+6)

Question: 2

Which one of the following shows the correct simplification of $a^2 \times a^3$?

a) a^5 b) a^6 c) $(a^2)^3$ d) $2a^5$ e) $2a^6$

Question: 3

Which one of the following shows a correct simplification of $a^2 + a^3 + a^3$

a) a^8 b) a^{18} c) $3a^8$ d) $a^2 + 2a^3$ e) $a^2 + 2a^6$

Question: 4

Which one of the following shows a correct simplification of $2x^3 \times 3x^4$

a) $6x^{12}$ b) $5x^{12}$ c) $5x^7$ d) $6x^7$ e) $\left(6x^3\right)^4$

Question: 5

What does $2a^2 \times 4b^3$ equal?

a) $8(ab)^5$ b) $8(ab)^6$ c) $6(ab)^5$ d) $6a^2b^3$ e) $8a^2b^3$

Question: 6

Which one of the following is equal to: $\dfrac{2^5 \times 5^4}{2^2 \times 5^2}$?

a) 10^5 b) $1^3 \times 1^2$ c) $2^3 \times 5^2$ d) 10^6 e) 7^5

Question: 7

$\dfrac{b^6}{b^2}$ can also be written as:

a) b^2 b) b^{-4} c) b^4 d) b^8 e)   3

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Question: 8

$6a^0 \times 3b^0$ is equal to:

a)   0   b)   1   c)   9   d)   18   e)   None of these

Question: 9

Which one of the following is **not** equivalent to: $8y^9$?

a) $2y^6 \times 4y^3$ b) $4y^6 + 4y^3$ c) $8y^8 \times y$ d) $8y^5 \times y \times y^3$ e) $4y^9 + 4y^9$

Question: 10

$\dfrac{x^2 y^3 z}{x^6 y^7 z^2} \times \dfrac{x^7 y^{10} z^4}{xy^6 z^2}$ is equal to:

a) x^3 b) $\dfrac{x^8}{y^{12}}$ c) $\dfrac{1}{x^2 z^2}$ d) $x^2 z$ e) $x^2 yz$

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