## Indices

ACMNA182-Assessment

## Name:

## $\begin{array}{llllll}7 & 8 & 9 & 10 & 11 & 12\end{array}$


Assessment

Student

25 min

## Question: 1

What does $6^{4}$ mean?
a) $6+6+6+6$
b) $4 \times 6$
c) $4 \times 4 \times 4 \times 4 \times 4 \times 4$
d) $6 \times 6 \times 6 \times 6$
e) $4 \times(6+6+6+6)$

Question: 2
Which one of the following shows the correct simplification of $a^{2} \times a^{3}$ ?
a) $a^{5}$
b) $a^{6}$
c) $\left(a^{2}\right)^{3}$
d) $2 a^{5}$
e) $2 a^{6}$

## 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) $3 a^{8}$
d) $a^{2}+2 a^{3}$
e) $a^{2}+2 a^{6}$

Question: 4
Which one of the following shows a correct simplification of $2 x^{3} \times 3 x^{4}$
a) $6 x^{12}$
b) $5 x^{12}$
c) $5 x^{7}$
d) $6 x^{7}$
e) $\left(6 x^{3}\right)^{4}$

Question: 5
What does $2 a^{2} \times 4 b^{3}$ equal?
a) $8(a b)^{5}$
b) $\quad 8(a b)^{6}$
c) $\quad 6(a b)^{5}$
d) $6 a^{2} b^{3}$
e) $8 a^{2} b^{3}$

Question: 6
Which one of the following is equal to: $\frac{2^{5} \times 5^{4}}{2^{2} \times 5^{2}}$ ?
a) $10^{5}$
b) $1^{3} \times 1^{2}$
c) $2^{3} \times 5^{2}$
d) $10^{6}$
e) $7^{5}$

Question: 7
$\frac{b^{6}}{b^{2}}$ can also be written as:
a) $b^{2}$
b) $b^{-4}$
c) $b^{4}$
d) $\quad b^{8}$
e) 3

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## Question: 8

$6 a^{0} \times 3 b^{0}$ 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: $8 y^{9}$ ?
a) $2 y^{6} \times 4 y^{3}$
b) $4 y^{6}+4 y^{3}$
c) $8 y^{8} \times y$
d) $8 y^{5} \times y \times y^{3}$
e) $4 y^{9}+4 y^{9}$

Question: 10
$\frac{x^{2} y^{3} z}{x^{6} y^{7} z^{2}} \times \frac{x^{7} y^{10} z^{4}}{x y^{6} z^{2}}$ is equal to:
a) $x^{3}$
b)
$\frac{x^{8}}{y^{12}}$
c) $\frac{1}{x^{2} z^{2}}$
d) $x^{2} z$
e) $x^{2} y z$


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