

Year 9 Class 1 questions

Q1

If $3^{10} \div 3^2 = 3^A$,

then $A =$

Q2

Simplify $5y \times 4y^2$.

- $20y^3$ $9y^3$ $20y^2$

Q3

Simplify $6m^8 \div 3m$.

- $13m$ $2m^7$ m^2

Q4

Express **0.0762** in scientific notation.

$\times 10^{\text{$

Q5

Express 8.4×10^{-1} as a basic numeral.

Q6

Evaluate: $5^0 + 5 =$

Q7

Evaluate: $-5 + (2 - 3^0) =$

Q8

Simplify $y^3z \times y^3z$.

- y^9z^2 y^6z y^6z^2

Q9

Simplify $m^4n \times mnp^3 \times m^3np^2$.

- $m^8n^3p^5$ $m^{12}n^3p^6$ m^7np^6

Q10

Simplify $100m^{12}n^4 \div 50m^8n^4$.

- $50m^4$ $2m^4$ mn

Q11

Simplify $6a \div 3a^3$.

- a^3 $\frac{2}{a^2}$ $9a$

Q12

Express **84 200** in scientific notation.

$\times 10^{\text{$

Q13

Express **67 200** in scientific notation.

$\times 10^{\text{$

Q14

Express 4.6×10^{-5} as a basic numeral.

Q15

Express 4.2×10^{-4} as a basic numeral.

Q16

If $3^4 \times 5^2 \times 3 \times 5^4 = 3^A \times 5^B$,

then $A =$, $B =$

Q17

$$\text{If } \frac{2^8 \times 3^6}{2^2 \times 3^2} = 2^A \times 3^B,$$

then $A = \square$, $B = \square$

Q18

$$\text{If } \frac{2^{10} \times 3^6}{2^5 \times 3^3} = 2^A \times 3^B,$$

then $A = \square$, $B = \square$

Q19

Simplify $a^{-2} \times a^5$.

- $3a^3$ a^3 $5a$

Q20

Simplify $7a^2b \times 2a^4b^6$.

- $9a^6b^7$ $14a^6b^7$ $14a^2b^5$

Q21

Simplify $mn \times 3m \times 2m^3n$.

- $6m^3n^4$ $5m^5n^2$ $6m^5n^2$

Q22

Simplify $\frac{16x^2y}{12xy^3}$.

- $\frac{4x}{3y^2}$ $\frac{16x}{3y^2}$ $\frac{2x}{6y^2}$

Q23

Simplify $\frac{24a^4b^6c}{20a^3b^4c^5}$.

- $\frac{6ab^2}{5c^4}$ $\frac{24abc}{20abc}$ $\frac{6}{5}$

Q24

Simplify $\frac{-8m^3n}{-40m^4n}$.

- mn $\frac{1}{m}$ $\frac{1}{5m}$

Q25

Express **572 000 000** in scientific notation.

$\times 10^{\square}$

Q26

Express **0.000000032** in scientific notation.

$\times 10^{\square}$

Q27

Express **0.000000019** in scientific notation.

$\times 10^{\square}$

Q28

Express 7.42×10^7 as a basic numeral.

Q29

Express 3.2×10^{-8} as a basic numeral.

Q30

Express 9.2×10^{-7} as a basic numeral.