

## Year 8 Class 5 questions

Q1

Evaluate.

$$(4 - 6)^4 = \boxed{\phantom{000}}$$

Q2

Simplify  $a^2 \times b^3 \times a^5$ .

$a^7b^3$       $a^7b^2$       $a^6b^5$

Q3

Simplify  $(3a)^2$ .

$9a^2$       $3a$       $5a^2$

Q4

Evaluate:  $(7a)^0 = \boxed{\phantom{00}}$

Q5

$$48.394 + 229.094 + 21.7 = \boxed{\phantom{000.000}}$$

Q6

Simplify.

$$4^3 \times 4^6 \times 4^4 = \boxed{\phantom{0000}}$$

$12^{14}$      $64^{14}$      $4^{13}$      $4^{72}$

Q7

Simplify.

$$2^9 \div 2^3 = \boxed{\phantom{000}}$$

$2^3$      $1$      $2^6$      $2^{12}$

Q8

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

$y^9z^2$       $y^6z$       $y^6z^2$

Q9

Simplify  $a^6 \times a^{-2}$ .

$a^4$       $a^3$       $a^{-2}$

Q10

Simplify  $(y^{-1})^7$ .

$y^{-1}$       $y^7$       $y^{-7}$

Q11

Simplify  $(n^{-3})^{-4}$ .

$n^{12}$       $n^{11}$       $n^8$

Q12

Evaluate:  $-6 \times (-2a)^0 = \boxed{\phantom{00}}$

Q13

Evaluate:  $7b^0 + (2b)^0 = \boxed{\phantom{00}}$

Q14

$$90.06 + 67.3625 + 232.99 + 17 = \boxed{\phantom{000.000}}$$

Q15

$$65.069 + 129.317 + 23.74 + 89 = \boxed{\phantom{000.000}}$$

Q16

Simplify.

$$(10^2)^4 = \text{[ ]}$$

*HINT* :  $(10^2)^4 = 10^2 \times 10^2 \times 10^2 \times 10^2$

$$10^8 \quad 10^6 \quad 10^2 \quad 100^6$$

Q17

Simplify.

$$(6^5)^3 = \text{[ ]}$$

*HINT* :  $(6^5)^3 = 6^5 \times 6^5 \times 6^5$

$$6^8 \quad 6^2 \quad 6^{15} \quad 216^{15}$$

Q18

Simplify.

$$(4^4)^3 = \text{[ ]}$$

*HINT* :  $(4^4)^3 = 4^4 \times 4^4 \times 4^4$

$$4^{12} \quad 4^7 \quad 64^4 \quad 64^{12}$$

Q19

Simplify  $3a^2b \times (-2a^2b^3)$ .

$-6a^4b^3$         $-6a^4b^4$         $-5a^4b^4$

Q20

Simplify  $3b^2c \times (-2bc) \times (-b^2c)$ .

$-6b^5c^3$         $6b^4c^3$         $6b^5c^3$

Q21

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

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

Q22

Simplify  $(-3a^2b)^2$ .

$-9a^4b^2$       $-6a^4$         $9a^4b^2$

Q23

Simplify  $(8p^4q^3)^2$ .

$64pq^6$       $64pq$         $64p^8q^6$

Q24

Simplify  $(-2x^5y^2)^3$ .

$-8x^{15}y^6$       $-8x^6y^6$       $-8x^6y^{15}$

Q25

Select all the true statements.

- $(3a)^0 + 3a = 4a$   
  $m^5 \div m^5 + 4m^0 = 5$   
  $4p^0 + (4p)^0 = 5$   
  $4 \times (2a)^0 = 8$

Q26

Select all the true statements.

- $4 \times (2a)^0 = 4$   
  $(-8m)^0 = 1$   
  $m^7 \div m^7 + 4m = 5m$   
  $m - 7m^0 = m - 7$

Q27

Select all the true statements.

- $-5 \times (3a)^0 = -5$   
  $-5 \times 3a^0 = -5$   
  $(4a^2)^2 \div 8a^4 + a^0 = 3$   
  $a^6 \div a^6 + 3a^0 = 4$

Q28

$$3.5 + 4.2 + \boxed{\phantom{000}} = 9.5$$

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Q29

$$2.1 + 3.5 + \boxed{\phantom{000}} = 11.7$$

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Q30

$$\boxed{\phantom{000}} + 1.3 + 4 = 11.82$$

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