



**Answer: C)  $39x + 5y$**

16. What is the value of adding  $(5x+2y)$ ,  $(4x - 7z)$  and  $(15z - 3y)$ ?

- A)  $9x + y - 8z$                       B)  $x - 9y + 8z$   
C)  $9x - y + 8z$                       D)  $x + 9y + 8z$

**Answer: C)  $9x - y + 8z$**

17. Which is equal to  $(a+b)^2 - (a-b)^2$ ?

- A)  $5ab$                                       B)  $3ab$   
C)  $4ab$                                       D)  $2ab$

**Answer: C)  $4ab$**

18. What is the value of  $x$ , if  $3(2x - 4) = -4x + 28$  ?

- A) 6    B) 8  
C) 4    D) 12

**Answer: C) 4**

19. Which is the formula for  $a^m / a^n$ ?

- A)  $a^{m-n}$                                       B)  $a^{m \times n}$   
C)  $(a^m)^n$                                       D)  $a^{m+n}$

**Answer: A)  $a^{m-n}$**

20. What is the expanded form of  $(a+b)^2$ ?

- A)  $(-a^2 - 2ab + b^2)$                       B)  $a^2 + 2ab + b^2$   
C)  $a^2 - 2ab + b^2$                       D)  $a^2 + 2ab + b^2$

**Answer: D)  $a^2 + 2ab + b^2$**

21. What is the value of  $ab$  if  $(a+b)^2 = 36$  and  $(a-b)^2 = 24$ ?

- A) 4    B) 2  
C) 6    D) 3

**Answer: D) 3**

22. Which is expanded form of  $a^3 - b^3$ ?

- A)  $(a-b)(a^2 - b^2 + ab)$                       B)  $(a-b)(a^2 + b^2 + ab)$   
C)  $(a-b)(a^2 - b^2 - ab)$                       D)  $(a+b)(a^2 + b^2 - ab)$

**Answer: B)  $(a-b)(a^2 + b^2 + ab)$**

23. What is the value of  $a^5 \times a^7$ ?

- A)  $a^{35}$     B)  $a^{12}$   
C)  $a^{22}$     D)  $a^2$

**Answer: A)  $a^{35}$**

24. What is the formula for  $(a-b)^2$ ?

- A)  $a^2 + 2ab + b^2$                       B)  $a^2 - 2ab + b^2$   
C)  $a^2 - 2ab - b^2$                       D)  $(-a)^2 - 2ab - b^2$

**Answer: B)  $a^2 - 2ab + b^2$**

25. What is the value of  $12x^3y^2 / 4x^2y$ ?

- A)  $3xy$     B)  $(-3xy)$   
C)  $8xy$     D)  $16xy$

**Answer: A)  $3xy$**

26. What is the value of  $625^{0}$ ?

- A) 525    B) 25  
C) 0    D) 1

**Answer: D) 1**

27. What is the formula for  $a^m \times a^n$ ?

- A)  $a^{m-n}$                                       B)  $a^{mn}$   
C)  $a^{m+n}$                                       D)  $n \cdot a^m$

**Answer: C)  $a^{m+n}$**

28. Which is the expansion of  $a^3 + b^3$ ?

- A)  $(a-b)(a^2 + b^2 - ab)$                       B)  $a^3 - b^3 + 3ab(a-b)$   
C)  $(a+b)(a^2 + b^2 - ab)$                       D)  $a^3 + b^3 + 3ab(a+b)$

**Answer: C)  $(a+b)(a^2 + b^2 - ab)$**

29. What is the value of  $a \times a^2 \times a^3 \times a^4$ ?

- A)  $a^8$     B)  $a^7$   
C)  $a^9$     D)  $a^{10}$

**Answer: D)  $a^{10}$**

30. What is the value of any number raised to the power of 0?

- A) Alpha (?)                                      B) 0  
C) (-1)    D) 1

**Answer: D) 1**

31. What is the value of  $a^2 + b^2$  if  $a+b=9$  and  $ab = 20$ ?

- A) (-41)    B) 121  
C) 41    D) (-121)

**Answer: C) 41**

32. What is the value of  $x^2 - y^2$  if

$(x+y) = 9, (x - y) = 4?$

A) 13

B) 46

C) 36

D) 65

**Answer: C) 36**

**33.** What is the value of  $x$ , if  $x*(120) = 960?$

A) 6

B) 7

C) 10

D) 8

**Answer: D) 8**