



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

**Answer: A) 3**

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

- A) 525  
C) 0
- B) 1  
D) 25

**Answer: B) 1**

17. What is the simplified value of  $(3x + 15) / 5x + 25$ ?

- A)  $(-3/5)$   
C)  $(3/5)$
- B)  $(5/3)$   
D)  $(-5/3)$

**Answer: C)  $(3/5)$**

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

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

**Answer: C) 41**

19. What is the value of  $x$ , if  $x^{120} = 960$ ?

- A) 6  
C) 7
- B) 10  
D) 8

**Answer: D) 8**

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

- A) 6  
C) 2
- B) 4  
D) 3

**Answer: D) 3**

21. What is the expansion of  $(a+b+c)^2$ ?

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

**Answer: B)  $a^2 + b^2 + c^2 + 2(ab + bc + ca)$**

22. Which is equal to  $(a^m)^n$ ?

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

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

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

- A)  $a^{m+n}$   
B)  $a^{m-n}$

- C)  $(a^m)^n$   
D)  $a^{mn}$

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

24. What is the value of  $x$  if  $(x + 2) / 2 = 19$ ?

- A) 38  
C) 35
- B) 36  
D) 33

**Answer: B) 36**

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

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

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

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

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

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

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

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

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

28. What is the value of  $1 / a^{-5}$ ?

- A)  $a^5$   
C)  $5a$
- B)  $(-5a)$   
D)  $a^{-5}$

**Answer: A)  $a^5$**

29. What are the three consecutive numbers if their sum is 42?

- A) 14,15,16  
C) 13,14,15
- B) 11,12,13  
D) 12,13,14

**Answer: C) 13,14,15**

30. What is the value of 'X' if  $x - y = 6$  and  $x + y = 8$ ?

- A) 14  
C) 6
- B) 7  
D) 5

**Answer: B) 7**

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

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

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

32. What is the value of  $(6^3) / ((-3)^3)$  ?

A) (-8)

B) (-27)

C) 8

D) 27

**Answer: A) (-8)**

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