APTITUDE QUIZ

1. Which is greater than 4?

(a) 5,

(b) -5,

(c) -1/2,

(d) -25.

2. Which is the smallest?

(a) -1,

(b) -1/2,

(c) 0,

(d) 3.

3. Combine terms: 12a + 26b -4b – 16a.

(a) 4a + 22b,

(b) -28a + 30b,

(c) -4a + 22b,

(d) 28a + 30b.

4. Simplify: (4 – 5) – (13 – 18 + 2).

(a) -1,

(b) –2,

(c) 1,

(d) 2.

5. What is |-26|?

(a) -26,

(b) 26,

(c) 0,

(d) 1

6. Multiply: (x – 4)(x + 5)

(a) x^2 + 5x - 20,

(b) x^2 - 4x - 20,

(c) x^2 - x - 20,

(d) x^2 + x - 20.

7. Factor: $5x^2 - 15x - 20$.

(a) 5(x-4)(x+1),

(b) -2(x-4)(x+5),

(c) -5(x+4)(x-1),

(d) 5(x+4)(x+1).

8. Factor: 3y(x – 3) -2(x – 3).

(a) (x – 3)(x – 3),

(b) $(x - 3)^2$,

(c) (x – 3)(3y – 2),

(d) 3y(x – 3).

9. Solve for x: 2x – y = (3/4)x + 6.

(a) (y + 6)/5,

(b) 4(y + 6)/5,

(c) (y + 6),

(d) 4(y - 6)/5.

10. Simplify:$(4x^2 - 2x) - (-5x^2 - 8x)$.

Solution:

$(4x^2 - 2x) - (-5x^2 - 8x)$

$= 4x^2 - 2x + 5x^2 + 8x.$

$= 4x^2 + 5x^2 - 2x + 8x.$

$= 9x^2 + 6x.$

$= 3x(3x + 2).$

Answer: 3x(3x + 2)

11. Find the value of 3 + 2 • (8 – 3)

(a) 25,

(b) 13,

(c) 17,

(d) 24,

(e) 15.

12. Rice weighing $3^3/_4$ pounds was divided equally and placed in 4 containers. How many ounces of rice were in each?

Solution:

$3^3/_4 \div 4$ pounds.

= (4 × 3 + 3)/4 ÷ 4 pounds.

= 15/4 ÷ 4 pounds.

= 15/4 × 1/4 pounds.

= 15/16 pounds.

Now we know that, 1 pound = 16 ounces.

Therefore, 15/16 pounds = 15/16 × 16 ounces.

= 15 ounces.

Answer: 15 ounces.

13. Factor: $16w^3 – u^4w^3$

Solution:

$16w^3 – u^4w^3$.

$= w^3(16 – u^4)$.

$= w^3(4^2 - ((u^2)^2)$.

$= w^3(4 + u^2)(4 - u^2)$.

$= w^3(4 + u^2)(2^2 - u^2)$.

$= w^3(4 + u^2)(2 + u)(2 - u)$.

Answer: $w^3(4 + u^2)(2 + u)(2 - u)$.

14. Factor: $3x^4y^3 – 48y^3$.

Solution:

$3x^4y^3 – 48y^3$.

$= 3y^3(x^4 – 16)$.

$= 3y^3[(x^2)^2 - 4^2]$.

$= 3y^3(x^2 + 4)(x^2 - 4)$.

$= 3y^3(x^2 + 4)(x^2 - 2^2)$.

$= 3y^3(x^2 + 4)(x + 2)(x -2)$.

Answer: $3y^3(x^2 + 4)(x + 2)(x -2)$

15. What is the radius of a circle that has a circumference of 3.14 meters?

Solution:

Circumference of a circle = 2πr.

Given, circumference = 3.14 meters.

Therefore,

2πr = Circumference of a circle

or, 2πr = 3.14.

or, 2 × 3.14r = 3.14,[Putting the value of pi (π) = 3.14].

or, 6.28r = 3.14.

or, r = 3.14/6.28.

or, r = 0.5.

Answer: 0.5 meter.

ANSWER

1.a

2.a

3.c

4.d

5.b

6.d

7.a

8.c

9.b

10. **3x(3x + 2)**

11.d

12. **15 ounces**

13. w3(4 + u2)(2 + u)(2 - u).

14. $3y^3(x^2 + 4)(x + 2)(x -2)$

15. **0.5 meter.**