

1. Evaluate the expression for  $x = -1$ .

$$-|-x| + |x|$$

- A -2
- B -1
- C 1
- D 0
- E none of these

2.  $7^9/7^7$

- A 49
- B  $7^7/7^9$
- C  $7^{-2}$
- D 1
- E none of these

3. Evaluate.

$$3^{-1} + 3^{-2}$$

- A  $1/12$
- B  $4/9$
- C 12
- D 9
- E none of these

4. Simplify. Write your answers with no negative exponents.

$$(3a^{-2}b^3)^{-2}$$

- A  $3a^4b^6$
- B  $3a^4/b^6$
- C  $a^4/9b^6$
- D  $9a^4b^9$
- E none of these

5. Simplify.

$$\frac{4x^2y^{-3}z}{2x^{-1}y^{-2}z}$$

- A  $4xy/z$
- B  $2x^3y^5/z$
- C  $2xy/z$
- D  $2x^3/y$
- E none of these

6. Evaluate.

$$27^{2/3}$$

- A 9
- B 18
- C  $1/9$
- D  $-1/9$
- E none of these

7. Evaluate.

$$100^{-3/2}$$

- A -150
- B  $-1/100$
- C  $1/1000$
- D 100
- E none of these

8. Simplify.

$$2\sqrt{27} - \sqrt{75}$$

- A  $-30\sqrt{3}$
- B 1
- C  $\sqrt{2}$
- D  $\sqrt{3}$
- E none of these

9. Subtract and simplify

$$(3x + 2) - (2x + 5)$$

- A  $x + 7$
- B  $7$
- C  $x - 3$
- D  $5x$
- E none of these

10. Factor the difference of squares.

$$49x^2 - 9$$

- A  $40x^2$
- B  $(7x + 3)(7x - 3)$
- C  $9(4x^2 - 1)$
- D  $(7x - 3)^2$
- E none of these

11. Given the following formula,  $u^3 - v^3 = (u - v)(u^2 + uv + v^2)$

factor the expression:

$$8x^3 - 27$$

- A  $(2x - 3)(4x^2 + 6x + 9)$
- B  $(8x - 3)(8x^2 + 24x + 9)$
- C  $(2x + 3)((4x^2 - 6x + 9)$
- D  $(8x - 3)(8x^2 - 24x + 9)$
- E none of these

12. Factor completely.

$$3(4x - 5) + (4x - 5)^2$$

- A  $(4x - 5)(4)$
- B  $12x - 15 + (4x - 5)^2$
- C  $2(4x - 5)(2x - 1)$
- D  $3(4x - 5)^3$
- E none of these

13. Given that  $f(x) = 3x - 5$ , Evaluate  $f(2)$

- A  $6x - 10$
- B 2
- C  $-4x$
- D 1
- E none of these

14. Find the x-intercept of the function  $f(x) = -2x + 6$

- A 3
- B -3
- C 2
- D -2
- E none of these

15. Solve  $4x^2 - 20x = 0$

- A -8, 0
- B 4, -20
- C 0, 5
- D 2, -2
- E none of these

16. Solve.  $x^2 - 9x - 36 = 0$

- A 3, -12
- B -4, 9
- C -3, 12
- D 4, -9
- E none of these

17. What math class will you be taking in the fall of 2018?

- A MAT 108 - Algebra Review
- B MAT 122 - Pre-College Algebra
- C MAT 151 - College Algebra
- D MAT 172 - Trig/Pre-Calc
- E None of these - I will not be taking a math class in the fall

18. The grade I feel I deserve in this class for the 1st Quarter of Fall 2017 is...

- A
- B
- C
- D
- E

19. Before I close this test, I am going to go back and work out a few problems on paper so that I can get the highest score possible.

- A True
- B False

20. The most valuable/memorable thing I've learned in this math class this year is....

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