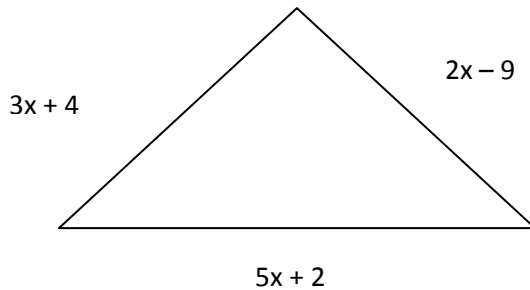


NO CALCULATOR ALLOWED

Elementary Algebra Section: This section has 12 questions and you will need to get at least 6 correct to take the second part of the test. If you get at least 6/12 on this section (EA Section) you will be able to take Math 93 or Math 105. If you get 5/12 you automatically qualify for Math 90. If you get less than 5/12, the student then takes the Pre-Algebra Section (PA Section).

1.



- (A) $10x + 3$ (B) $10x - 3$ (C) $30x - 72$ (D) $10x - 15$ (E) $10x - 7$

2. Which is equivalent to $-3t - 9 > 5t + 7$

- (A) $t > \frac{-1}{2}$ (B) $t > \frac{1}{2}$ (C) $t > 2$ (D) $t < -2$ (E) $t > -2$ (F) $t < \frac{-1}{2}$

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

- (A) $4x^2 - 10xy + 25y^2$ (B) $4x^2 + 25y^2$ (C) $4x^2 - 7xy + 25y^2$
(D) $4x^2 - 14xy + 25y^2$ (E) $4x^2 - 20xy + 25y^2$

4. $(2x - 3)$ is a factor of which of the following.

I. $2x^2 + 5x - 12$

II. $2x^2 - 7x - 4$

III. $4x^2 + 9$

- (A) Only I
- (B) Only II
- (C) Only III
- (D) I and II
- (E) I and III
- (F) II and III

5. $\frac{p^{-10}}{p^5} =$

- (A) $\frac{1}{p^2}$ (B) $\frac{1}{p^{15}}$ (C) P^{15} (D) P^2 (E) P^5 (F) $\frac{1}{p^5}$

6. The average value of a certain type of computer was \$1,500 in 1994 and depreciated to \$900 in 1999. Let y be the average value of the computer in the year x , where $x = 0$ represents 1994. Write a linear equation that models the value of the computer in terms of the year x .

- (A) $y = -600x + 1500$ (B) $y = -120x + 1500$ (C) $y = -20x + 1500$
(D) $y = -5x + 1500$ (E) $y = -x + 1500$

7. $\left(\frac{r}{4}\right)\left(\frac{1}{s}\right)$ is equivalent to $\left(\frac{r}{4}\right)$ divided by

- (A) $\left(\frac{1}{4s}\right)$ (B) $\left(\frac{1}{s}\right)$ (C) s (D) $4s$ (E) 4

Multiple Choice Accuplacer Math Test

8. For a concert 200 tickets were sold for $2x$ dollars each, 300 tickets sold for $3x$ dollars each, and 400 tickets were sold for $4x$ dollars each. Which expression represents the total dollar amount from the sale of all 900 tickets?

- (A) $900x$ (B) $1200x$ (C) $2000x$ (D) $2900x$ (E) $3600x$

9. If both x and y are positive Integers in the equation $x + 3y = 15$, how many different values can x have?

- (A) 1 (B) 2 (C) 3 (D) 4 (E) 5

10. Which of the following is equivalent to $\sqrt{\frac{63x^{27}y^6}{7x^{11}y^2}}$

- (A) $3x^8y^2$ (B) $3x^4y^2$ (C) $9x^8y^2$ (D) $3xy^2\sqrt{xy}$ (E) $9x^4y^2$

11. The ordered pair $(x, y) = (3, -4)$ is a solution to the equation $kx - y = 16$. What is the value of k ?

- (A) $\frac{20}{3}$ (B) $\frac{19}{4}$ (C) 4 (D) 1 (E) $\frac{1}{3}$

12. $\frac{2x}{3} - \frac{3y}{5}$

- (A) $\frac{10x-9y}{15}$ (B) $\frac{2x-3y}{8}$ (C) $\frac{2x-y}{5}$ (D) $\frac{10x-9y}{2}$ (E) $\frac{2x}{15} - 5y$

College Level Math section of Accuplacer Placement Test: If a student gets at least 6/12 on the EA test, they then take this test (CLM). This section has 20 questions and a student needs to get at least 7 correct to take College Algebra (Math 102), Statistics (Math 221), or Pre-calculus (Math 119). Note that this test has many questions on rational expressions. Also, since this test is used for placement into Pre-Calculus there are also 4 Trig questions.

1. $(5 + 2i)(6 - 3i)$

- (A) $6 - 3i$ (B) $6 - 27i$ (C) $16 - 3i$ (D) $36 - 3i$ (E) $36 - 27i$

2. The fundamental period of the function $f(x) = \tan(2x)$

- (A) $\frac{\pi}{4}$ (B) π (C) $\frac{\pi}{2}$ (D) 2π (E) 4π

3. If $x \neq 0$, then $|x^4| - 5 =$

- (A) $x^2 + 5$ (B) $x^2 - 5$ (C) $x^4 - 5$ (D) $x^4 + 5$ (E) $-x^4 + 5$

4. Which of the following is an equation of a line parallel to the line whose equation is $y = 2x - 3$?

- (A) $3y + 2x = 3$ (B) $3y + 3x = 1$ (C) $6y - 12x = 5$
(D) $4y - 2x = -3$ (E) $y - x = 3$

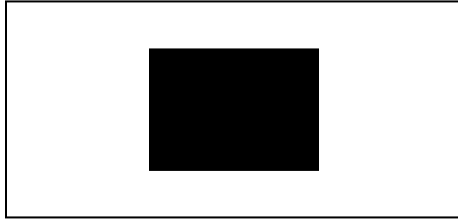
5. If $f(x) = 3^{(x-2)}$ then $f(1) =$

- (A) -1 (B) 0 (C) $\frac{1}{3}$ (D) 1 (E) 3

6. A line goes through the origin with a slope of 2. Another line goes through the points (2,1) and (0,-4). These two lines will intersect at the point (t,r). What is the value of t?

- (A) 2 (B) $\frac{5}{2}$ (C) 4 (D) 6 (E) 8

7. The total area of the rectangular floor below is $\frac{5}{x}$. The area of the black tile square is $\frac{5}{x+1}$. What is the area of the white tile section? ($x \neq 0, -1$)



- (A) $\frac{5}{x(x+1)}$ (B) $\frac{10x+5}{x(x+1)}$ (C) $\frac{10}{x(x+1)}$
- (D) $\frac{25}{x(x+1)}$ (E) None of these
8. If $5^x = y$ and $y^2 = z$, which of the following must be equal to z ?
- (A) $\sqrt{5^x}$ (B) 25^x (C) 25^{2x} (D) $5x^2$ (E) $25x^2$
9. Which of the following are positive in the third quadrant?
- (A) Cot (B) Sin (C) Sec (D) Cos (E) None of these
10. In the xy plane, the point $(2,2)$ is on a circle centered at the origin. What is the radius of the circle?
- (A) 2 (B) 4 (C) $\sqrt{2}$ (D) $2\sqrt{3}$ (E) $2\sqrt{2}$
11. If the roots of the equation $x^2 + 12x = -32$ are p and t and $t < p$, then $p =$
- (A) $\frac{1}{t}$ (B) t^2 (C) $2t$ (D) $-t$ (E) $t + 6$

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12. $(\sqrt{x} + 2\sqrt{y})(\sqrt{x} - \sqrt{y})$

- (A) $x - 2\sqrt{xy} - y$ (B) $x - \sqrt{xy} - 2y$ (C) $x - \sqrt{xy} + 2y$
(D) $x + \sqrt{xy} - 2y$ (E) $x + 2\sqrt{xy} + y$

13. Where defined, $\frac{(x-3)(x+5)^2}{x^4-34x^2+225}$

- (A) $\frac{-1}{x+5}$ (B) $\frac{1}{x-5}$ (C) $\frac{x+5}{(x-3)(x-5)}$
(D) $\frac{x+5}{(x+3)(x-5)}$ (E) $\frac{x-5}{(x+3)(x+5)}$

14. If $\sin^{-1}(x) = \pi$, then $x =$

- (A) 1 (B) -1 (C) 0 (D) $\frac{\pi}{2}$ (E) None of these

15. If $f(x) = x^2+2$ for $x > 0$ and $f^{-1}(x)$ is the inverse of $f(x)$, then $f^{-1}(4) =$

- (A) -2 (B) 0 (C) $\sqrt{2}$ (D) 2 (E) 4

16. The graph of the function f is symmetric about the x axis. If $f(2) = 3$, which of the following must be true?

- (A) $f(-2) = 3$ (B) $f(2) = -3$ (C) $f(-2) = -3$
(D) $f(3) = -2$ (E) $f(3) = 2$

Multiple Choice Accuplacer Math Test

17. Simplify $\frac{-5}{(x-2)} - \frac{10}{(x^2-4)}$

(A) $\frac{-15}{(x^2-4)}$ (B) $\frac{-5(x+4)}{(x^2-4)}$ (C) $\frac{-5x}{(x^2-4)}$

(D) $\frac{-15}{(x+2)}$ (E) $\frac{-15}{(x-2)}$

18. If $xyz \neq 0$, and $(-4x^3yz^2)^3P = 64x^{10}y^{12}z^{14}$, then $P = ?$

(A) $x^7y^{11}z^{12}$ (B) $-64x^9y^3z^6$ (C) xy^9z^8

(D) $-xy^9z^8$ (E) $2xy^3z^4$

19. What are the solutions to the equation $|3x - 7| = 6$?

(A) $\frac{13}{3}$ and $\frac{-13}{3}$ (B) $\frac{-13}{3}$ and $\frac{1}{3}$ (C) $\frac{1}{3}$ and $\frac{-1}{3}$

(D) $\frac{13}{3}$ and $\frac{1}{3}$ (E) $\frac{13}{3}$ and $\frac{-1}{3}$ (F) Only $\frac{13}{3}$

20. Which of the following is the equation of the line that goes through the point $(-1,2)$ and is parallel to the line? $12x - 3y = -10$

(A) $y = -12x - 10$ (B) $y = 4x - 2$ (C) $y = -4x - 2$

(D) $y = 4x + 2$ (E) $y = 4x + 6$

Multiple Choice Accuplacer Math Test

Answer Key

Elementary Algebra

1. B
2. D
3. E
4. A
5. B
6. B
7. C
8. D
9. D
10. A
11. C
12. A

College Level Math

1. D
2. C
3. C
4. C
5. C
6. E
7. A
8. B
9. A
10. E
11. C
12. D
13. D
14. C
15. C
16. B
17. B
18. D
19. D
20. E