Accuplacer Practice Test

Version 2

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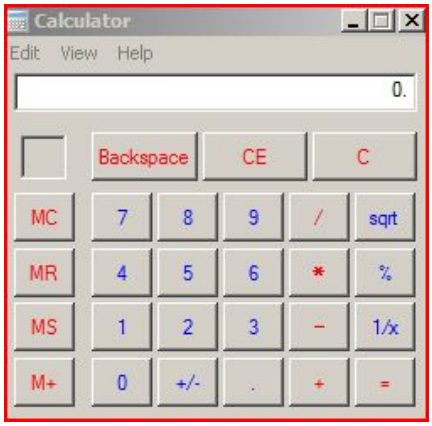
Instructions: Take this test in a manner most like the actual test will be administered which basically means two things: 1) It is untimed and 2) Calculators are not allowed to be taken into the exam, however one will be available on the screen. So, go ahead and use the one either on your phone (the simple one, not a fancy app) or the one on your computer which should be located in the "accessories" or "start" menu). It should be "4-function" only and look about like this:



Good luck!

Arithmetic

1. The obtuse angles of a parallelogram are $140°$. What is the measure of each of its acute angles?

   A. $140°$
   B. $50°$
   C. $40°$
   D. $80°$

2. $1.96 \times .42 =$
   A. 8.232
   B. .8232
   C. 82.32
   D. 9

3. A football player caught 20 percent of all 45 balls thrown. How many balls did the football player catch?
   A. 20
   B. 44
   C. 22
   D. 9

4. Solve for x: $\frac{X}{3} = \frac{6}{9}$
   A. 2
   B. 3
   C. 12
   D. 18

5. $4\frac{3}{4} - 1\frac{1}{2} =$
   A. $1\frac{1}{2}$
   B. $2\frac{1}{4}$
   C. 3
   D. $3\frac{1}{4}$

6. $3 + 2 \times 7.35 \div 3.45 =$
   A. 7.26
   B. 10.65
   C. 1.065
   D. .726

7. A bag of marbles contains blue marbles, red marbles, and mahogany marbles. If the bag is $\frac{1}{2}$ blue marbles and $\frac{1}{3}$ red marbles, what fraction of the marbles in the bag are mahogany?
   A. $\frac{1}{5}$
   B. $\frac{3}{4}$
   C. $\frac{5}{6}$
   D. $\frac{1}{6}$

8. 5^2+2^3=?
   A. 33
   B. 16807
   C. 117649
   D. 1000000

9. On four tests, Jantzen scored 19, 20, 41, and 4. What is his average test score?
   A. 21
   B. 41
   C. 84
   D. 19.5

10. Which of the following is the least?
   A. 0.605
   B. 0.0556
   C. 0.0687
   D. 0.556

11. Four out five numbers have the sum of 38. If the average is 50, what is the fifth number?
   A. 12
   B. 212
   C. 50
   D. 24

12. Which of the following is NOT a way of writing 50% of the quantity, N?
   A. .5N
   B. $\frac{1}{2}$N
   C. $\frac{50}{100}$N
   D. 50N

13. $3.24\times10^{-3} =$
   A. .324
   B. .0324
   C. .00324
   D. 32.4

14. Annistyn bought $4\frac{3}{4}$ feet of glass to build a box. If he uses $\frac{5}{6}$ of a foot of the glass to build the box, how much will he have left?
    A. $\frac{47}{12}$
    B. $\frac{47}{12}$
    C. $\frac{32}{24}$
    D. $\frac{1}{6}$

15. $\frac{5}{6}+\left(\frac{2}{3}\times\frac{1}{2}\right)-\left(\frac{3}{5}-\frac{1}{2}\right)=?$
    A. $\frac{16}{15}$
    B. $\frac{16}{12}$
    C. $-\frac{7}{20}$
    D. $\frac{32}{24}$

16. $\sqrt{36}+\sqrt{81}=?$
    A. 10.82
    B. 1.5
    C. 15
    D. 1.082

17. Kapono is buying enough wood to make a rectangular floor of 8 feet by 6 feet. If each square foot of the floor costs $1.50, how much will the floor cost Kapono?
    A. $21
    B. $15.50
    C. $72
    D. $69

18. $\frac{5}{10} \div \frac{3}{4}=$

A. $\frac{3}{8}$

B. $\frac{9}{16}$

C. $\frac{2}{3}$

D. $\frac{5}{6}$

19. What is $\frac{32{,}789}{385}$ to the nearest integer?

A. 78

B. 89

C. 82

D. 85

20. If $\frac{3}{4} \div \frac{1}{2} = n$, then n is between

A. 1 and 2

B. 2 and 3

C. 5 and 6

D. 0 and 1

Elementary Algebra

1. Which of the following is a solution of $x^2 + x = 6$?
   A. 3
   B. -3
   C. 2
   D. 6

2. An isosceles triangular carpet has an area of 15 square feet. If the height of the carpet is 1 foot less than the base, what is the perimeter, in feet, of the carpet?
   A. 15
   B. 18
   C. 36
   D. 32

3. $\frac{9x^3y^2+12x^2y^3}{3x^2y^2}=$
   A. $3x^{\frac{3}{2}} + y^{\frac{3}{2}}$
   B. $3x^3 + x$
   C. $3x + 4y$
   D. $3x^4$

4. If $2(6x - 7) = 6$ then $x =$
   A. $\frac{13}{12}$
   B. $\frac{3}{5}$
   C. 12
   D. $\frac{5}{3}$

5. A print shop hires Pascal to stuff envelopes for a mailer. On his first day he is able to stuff 550 envelopes in 3 hours. If he can maintain that pace every day for 8 hours, how many can he stuff in three days?
   A. 4400
   B. 2200
   C. 5600
   D. It can't be determined

6. $3 + 5y \geq 2y - 2$

Which of the following graphs is equivalent to the inequality shown above?

A. 

B. 

C. 

D. 

7. $\frac{3-(-12)}{-3}=$

A. 3
B. -3
C. -5
D. 5

8. Which of the following is a factor of both $x^2 - 6x + 9$ and $x^2 - 9$?

A. $x - 3$
B. $x + 2$
C. $x - 2$
D. $x + 3$

9. $(5x + 2y)^2 =$

A. $25x^2 + 4y^2$
B. $25x^2 + 20xy + 4y^2$
C. $25x^2 + 10xy + 4y^2$
D. $5x^2 + 2y^2$

10. A wireless provider charges $20 for the first 500 texts each month, then $.02 per text after that. Which expression calculates the cost of n texts in a given month?

A. $500n + .02n$
B. $500 + .02(500 - n)$
C. $20 + .02(500 - n)$
D. $20 + .02(n - 500)$

11. If $x \neq 0$, then $\frac{y}{2x} + \frac{4y}{2x} - \frac{3y}{4x} =$
    A. $\frac{7y}{4x}$
    B. $\frac{2y}{4x}$
    C. $\frac{13y}{4x}$
    D. $\frac{29y}{4x}$

12. If $x > 0$ then $\frac{x^2+4x+4}{x^2-4}$=
    A. 2
    B. $\frac{x-2}{x+2}$
    C. $\frac{x+2}{x-2}$
    D. $\frac{x+4}{x+2}$

13. Which expression represents the volume of a cube with sides of length (h+3)?
    A. $3(h+3)^2$
    B. $3(h+3)^3$
    C. $(3h+3)^3$
    D. $(h+3)^3$

14. $-6(5-7) - 3(4-3) =$
    A. 9
    B. -15
    C. 15
    D. -9

15. What is the value of $3x^2 + 2xy - 2y^2$ when $x = 2$ and $y = -4$?
    A. 36
    B. -36
    C. 24
    D. -24

16. 5x-2y=6

In the equation above, if y=7, what is the value of x?

A. 0
B. 7
C. -3
D. 4

17. $\sqrt{4}\times\sqrt{24}$ =?

A. $\sqrt{28}$
B. 8
C. 96
D. $\sqrt{96}$

18. What is the value of the expression $4x^3 + 3x^2 - 12x + 2$ when $x = 2$?

A. 20
B. 32
C. 22
D. 28

19. If $6(4x - 2) = 18$ then $x =$

A. 3
B. $\frac{5}{4}$
C. 5
D. $\frac{4}{5}$

20. What is the value of $x^2 - 3x + 4y^2$ when $x = 3$ and $y = -2$?

A. 0
B. 9
C. 16
D. -23

College-Level Mathematics

1. If $2^x - 3 = 5$, then x=
   A. 4
   B. 3
   C. 1
   D. $\frac{1}{4}$

2. $\sqrt{4} * \sqrt{8}$
   A. 22
   B. $\sqrt{8}$
   C. $4\sqrt{2}$
   D. 4

3. $3r(3x + 5) + (6x + 10) =$
   A. $(3r + 5)(6x + 10)$
   B. $(3r + 2)(3x + 5)$
   C. $(r + 2)(3x + 10)$
   D. $(3r + 10)(6x + 5)$

4. If θ is an acute angle and $\sin\theta = \frac{\sqrt{3}}{2}$, then $\cot\theta =$
   A. $\frac{1}{2}$
   B. 2
   C. $\frac{\sqrt{3}}{3}$
   D. $\frac{\sqrt{3}}{2}$

5. If $f(x) = 3x - 1$ and $g(x) = \frac{4(x+4)}{3}$, then $g\big(f(x)\big) =$
   A. $2x + 4$
   B. $4x + 4$
   C. $4x + 15$
   D. $\frac{12x+2}{3}$

6. Which of the following equations is for a straight line parallel to the graph of $y = 4x$?
   A. $4x - 2y = 6$
   B. $4x + y = 10$
   C. $4x - y = 3$
   D. $x - 2y = 4$

7. If $\log_4 x = 3$, then x=
   A. 4
   B. 64
   C. 81
   D. $\frac{4}{3}$

8. What is the area of a $45°$ slice of a pizza that has a diameter of 16 inches?
   A. 1.98π
   B. $.62\pi$
   C. 8π
   D. $.46\pi^2$

9. What is i^{10} equal to?
   A. $-i$
   B. -1
   C. 1
   D. i^2

10. $\begin{bmatrix} 2 & 5 \\ 9 & 1 \end{bmatrix} - \begin{bmatrix} 1 & 4 \\ 6 & 2 \end{bmatrix} =$
   A. $\begin{bmatrix} 2 & 4 \\ -3 & 1 \end{bmatrix}$
   B. $\begin{bmatrix} 4 & 1 \\ 1 & 2 \end{bmatrix}$
   C. $\begin{bmatrix} 1 & 1 \\ 3 & -1 \end{bmatrix}$
   D. $\begin{bmatrix} 3 & 2 \\ 8 & 4 \end{bmatrix}$

11. $(r^3 - 3)^2 =$
    A. $r^9 - 9$
    B. $r^6 + 9$
    C. $r^6 - 6r^3 - 9$
    D. $r^6 - 6r^3 + 9$

12. If θ is an acute angle and $\tan\theta = 1$ then $\sec\theta$=
    A. 1
    B. $\frac{\sqrt{2}}{2}$
    C. 2
    D. $\sqrt{2}$

13. What is the next term in the arithmetic sequence 32,30 ,28...?
    A. 26
    B. 24
    C. 14
    D. 2

14. $4(5x + 2) + x(5x + 2) =$
    A. $(4 + x)(5x + 2)$
    B. $(4 + x) + (5x + 2)$
    C. $4x(5x + 2)$
    D. $5x(4x + 2)$

15. What equation is a straight line perpendicular to the graph $y = 12x + 2$?
    A. $y = 12x$
    B. $y = -\frac{1}{12}x + 5$
    C. $y = \frac{1}{12}x + 2$
    D. $y = \frac{1}{6}x + 3$

16. If $f(x) = 5^x$ and $g(x) = x^2$, then what is $f\big(g(x)\big)$?
    A. 5^{x^2}
    B. $25x^2$
    C. 10^x
    D. $5x$

17. An equation of the line that contains the origin and the point (4,2) is
    A. $3x - 6 = y$
    B. $\frac{1}{4}x + 1 = y$
    C. $2x + 4 = y$
    D. $\frac{1}{2}x = y$

18. If $c \neq d$ and $\frac{1}{x} + \frac{1}{c} = \frac{1}{d}$ then x=
    A. $\frac{1}{d-c}$
    B. $d - c$
    C. $\frac{dc}{c-d}$
    D. $\frac{1}{dc}$

19. The leg of a right triangle is 3 inches and the hypotenuse is 5 inches respectively. What is the length of the triangle's other leg?
    A. 3
    B. 16
    C. 4
    D. 9

20. The admission fee at a play is $10.00 for children and $8.00 for adults. The movie theater can have maximum of 4000 people and on a particular day when the theater is full, $34,000 is collected. How many children attended on this day?
    A. 550
    B. 4600
    C. 2200
    D. 1000