

Practice Questions

- If $2x + 10 = 6x$, then $12x =$
 - 30
 - 15
 - 30
 - 60
- Find the x-intercept of the graph of the equation $y = 4(x+2)(x-1)$?
 - $x=2$; $x=-1$
 - $x=-2$; $x=1$
 - $x=8$; $x=-4$
 - $x=-8$; $x=-4$
- $-2(m^3n^3)(-3m^4n) =$
 - $-6m^7n^4$
 - $-6m^{12}n^3$
 - $6m^7n^4$
 - $6m^{12}n^3$
- $12x^6y^4$ divided by $2xy =$
 - $6x^5y^3$
 - $6x^6y^4$
 - $6x^7y^5$
 - $6xy$
- Solve for x: $x^2 - 36 = 0$
 - $X = 18$ or $x = -18$
 - $X = 6$ or $x = -6$
 - $X = 4$ or $x = -4$
 - $X = 6$ or $x = 0$
- Factor : $24 - 10y + y^2$
 - $(6-y)(4-y)$
 - $(6+y)(4+y)$
 - $(y+12)(y-2)$
 - $(y+8)(y+3)$
- If $m+5 = 31m + 10$; then $m =$
 - $15/32$
 - $5/32$
 - $-1/2$

- D. $-\frac{1}{6}$
8. Each of the equal sides of an isosceles triangle is 5 inches more than twice the third side. If the perimeter of the triangle is 55 inches, find the sides of the triangle
- A. 9; 9; 9
B. 15; 20; 20
C. 9; 23; 23
D. 30; 20; 20
9. What is the probability of tossing tails three consecutive times with a two sided fair coin?
- A. $\frac{1}{2}$
B. $\frac{1}{6}$
C. $\frac{1}{4}$
D. $\frac{1}{8}$
10. There are three blue crayons, four yellow crayons, two red crayons and one green crayon in a box. What is the probability of selecting at random, a blue crayon on the first draw?
- A. $\frac{3}{10}$
B. $\frac{2}{10}$
C. $\frac{1}{10}$
D. $\frac{4}{10}$
11. If $2(z + 6) = 24$ then $3z + 9 =$
- A. 12
B. 15
C. 27
D. 36
12. Simplify $\frac{4x^2y + 6x^4yz}{2y}$
- A. $\frac{2x^2 + 3x^4z}{2y}$
B. z
C. $2y$
D. $x^2(2 + 3x^2z)$

13. If $\frac{\sqrt{x}}{6} = \frac{\sqrt{x-1}}{3}$ then $x = ?$

- A. 18
- B. $\frac{4}{3}$
- C. 4
- D. $\sqrt{10}$

14. Laurie has a babysitting job. She can work up to 7 days/ week. She charges \$5/hour. For the past week her pay was \$5, \$15, \$10, \$20, \$30. In the following week, she would like to babysit for an additional day (she baby sat for 5 days in the previous week). How many hours does she need to work for that day to increase her average pay per week by \$4?

- A. 9 hours
- B. 8 hours
- C. She will have to work two additional days because she needs to add 40 hours
- D. 5 hours

15. Jamie would like to build a tall circular fence around her garden. The garden space takes up 36 square feet. About approximately how much fencing material will she need to enclose her garden?

- A. $12\sqrt{\pi}$
- B. $\sqrt{\pi}$
- C. 6
- D. $\frac{36}{\pi}$

16. What are possible solutions for (x^4-256)

- A. $(x-16)(x+16)$
- B. $(x^2-16)(x+4)(x-4)$
- C. $(x^2+16)(x+4)(x-4)$
- D. $(x-4)^4$

17. A rectangular kitchen is 15ft long and the width is short of half of the length by 2.5ft. There is a table whose length is equal to the width of the kitchen. If the table's perimeter is 16, then what is the length and width of the table?

- A. L= 5.5, W= 2.5
- B. L= 5, W =3
- C. L = 16, W= 1
- D. There is not enough information

18. The table below shows the average grades of the students in 10 college classes. From this data, what grade is the most frequent (mode), what grade is a median?

Students	Grades
Government	85
Algebra	75
Calculus	70
Trigonometry	60
History	90
Composition	65
Biology	80
Chemistry	65
Music	75
Literature	65

- A. 65 and 70
 - B. 65 and 72.5
 - C. 75 and 72.5
 - D. 75 and 75
19. From the table above, given that the ten averages are those of ten students instead of 10 classes. What percentage of those students has an average of 80 or more?
- A. 33.333%
 - B. 67%
 - C. 30%
 - D. 70%
20. Mr. Gustav organizes movie night for his coworkers and their families. He purchases a total of 30 tickets including adult and children tickets. He spends \$200. If the children's tickets are half the price of the adult tickets which are worth \$10, how many children are there?
- A. 10
 - B. 20
 - C. 15
 - D. There is not enough information given

Answers

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