QUIZ 3 MA125

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CHAPTER 5:

1. Is the underlined item an ordinal or a cardinal number?
"Jack placed second in the competition."

a) cardinal b) ordinal c) composite d) irrational

2. Write 1470 as a product of primes.

a) $2 \times 3 \times 5^2 \times 7$ b) $2 \times 3 \times 5 \times 7^2$ c) $2 \times 3^2 \times 5 \times 7$ d) $3^2 \times 5 \times 7^2$

3. State which number is divisible by 3: 863, 43512, 4301, 95.

a) 4301 b) 863 c) 43512 d) 95

4. Find the GCF of 150, and 480.

a) 2400 b) 75 c) 60 d) 30

5. Find the LCM of 72, and 120.

a) 360 b) 24 c) 240 d) 96

6. A father left $\frac{3}{10}$ of his estate to his son, $\frac{3}{5}$ to his wife, and $\frac{1}{20}$ to his church. The rest he gave to his daughter. What fraction was left for his daughter?

a) $\frac{1}{20}$ b) $\frac{1}{10}$ c) $\frac{9}{10}$ d) $\frac{19}{20}$

7. Evaluate: $3 \times 12 \div 4 \times 10^4 - 3(-6 + 4) \times 10^3$

a) 1,500 b) 15,000 c) 9,600 d) 96,000

8. Find the reciprocal of: $-2\frac{1}{2}$

a) $-2\frac{1}{2}$ b) $-\frac{2}{5}$ c) $2\frac{1}{2}$ d) $\frac{2}{5}$

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9. Multiply: $\frac{7}{9} \times -\frac{3}{15}$

a) $\frac{7}{45}$ b) $\frac{7}{18}$ c) $-\frac{7}{45}$ d) $-\frac{7}{18}$

10. Calculate and write in scientific notation: $(5 \times 10^{3}) \times (9 \times 10^{-7})$

a) $45 \times 10^{-21}$ b) $4.5 \times 10^{-21}$ c) $4.5 \times 10^{-3}$ d) $45 \times 10^{-4}$

11. Three sides of a clip measure 4.7, 8.35, 15.96 cm. Find the perimeter of the clip.

a) 27.11 cm b) 29.01 cm c) 27.01 cm d) 29.11 cm

12. The dimensions of a court are 65.7 feet by 75.6 feet. Find the area of the court.

a) 486.692 sq. ft. b) 4866.92 sq. ft. c) 496.692 sq. ft d) 4966.92 sq. ft.

13. Write as a decimal: $\frac{5}{8}$

a) 0.625 b) 0.0625 c) 6.25 d) 0.375

14. Write as a quotient of two integers: $0.3\overline{5}$

a) $\frac{16}{45}$ b) $\frac{7}{20}$ c) $\frac{9}{20}$ d) $\frac{3}{10}$

15. Write as a decimal: 5.74%

a) 57.4 b) 0.0574 c) 0.574 d) 574

16. Write as a percent: 0.83

a) 0.83% b) 8.3% c) 830% d) 83%

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17. Write as a percent: $\frac{3}{5}$

a) 30% b) 6% c) 60% d) 0.6%

18. A shoe sells for $40.00 and costs the store $25.00. Find the percent of profit on the cost.

a) 6% b) 60% c) 0.6% d) 37.5%

19. Simplify: $\sqrt{80}$

a) $4\sqrt{5}$ b) $5\sqrt{4}$ c) $16\sqrt{5}$ d) $8\sqrt{10}$

20. Simplify: $\frac{2}{\sqrt{20}}$

a) $\frac{1}{5}$ b) $\frac{\sqrt{5}}{5}$ c) $\frac{1}{\sqrt{10}}$ d) $\frac{\sqrt{10}}{10}$

21. Multiply and simplify: $\sqrt{5} \times \sqrt{12}$

a) $4\sqrt{15}$ b) $15\sqrt{2}$ c) $2\sqrt{15}$ d) 60

22. Simplify: $\sqrt{50} + \sqrt{32} - \sqrt{18}$

a) $12\sqrt{4}$ b) $6\sqrt{2}$ c) $12\sqrt{2}$ d) $12\sqrt{6}$

23. Identify the type of sequence: 3, 7, 11, 15, …

a) binomial b) exponential c) geometric d) arithmetic

24. Find the sum of the first ten terms: 3, 7, 11, 15, …

a) 210 b) 420 c) 39 d) 189

25. The first term of a geometric sequence is $\frac{1}{2}$ and $r = \frac{1}{3}$. Find the fifth term of the sequence.

a) $\frac{1}{162}$ b) $\frac{1}{14}$ c) $\frac{1}{54}$ d) $\frac{1}{48}$

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## CHAPTER 6

1. Solve the equation: $x + 6 = 11$

a) 17 b) $-17$ c) 5 d) $-5$

2. Find the integer solution: $3 + x \le -x + 9$

a) $\{4, 5, 6, \ldots\}$ b) $\{3, 4, 5, \ldots\}$ c) $\{\ldots, 0, 1, 2\}$ d) $\{\ldots, 1, 2, 3\}$

3. Solve: $3x + 5 = 4x - 2$

a) $x = -7$ b) $x = 7$ c) $x = 5$ d) $x = -5$

4. Solve: $\dfrac{x+7}{6} + \dfrac{2x-8}{2} = -4$

a) $x = 1$ b) $x = -1$ c) $x = 4$ d) $x = -4$

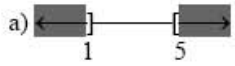
5. Solve for $L$: $P = 2L + 2W$

a) $\dfrac{P-2W}{2}$ b) $\dfrac{P+2W}{2}$ c) $\dfrac{P-2L}{2}$ d) $\dfrac{P+2L}{2}$

6. Solve: $\dfrac{-2(r-3)}{3} - \dfrac{1}{2} < \dfrac{(5-r)}{2}$

a) $r < -6$ b) $r > -6$ c) $r < -3$ d) $r > -3$

7. Graph the solution set to $x + 3 \ge 4$ and $x \le 5$

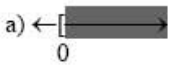
a) 

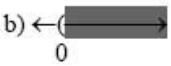
b) 

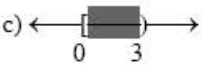
c) 

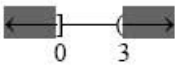
d) 


8. Graph the solution set to $x \ge 0$ or $x + 2 > 5$

a) 

b) 

c) 

d) 


9. Solve: $|x| = 6$

a) $-6, 6$ b) $-6$ c) 6 d) no solution

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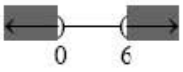
10. Graph the solution set of $|x-3|<3$

a) 


b) 

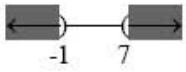

c) 

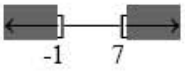

d) 


11. Graph the solution set of $|x-3|\geq 4$

a) 


b) 


c) 


d) 


12. Factor: $x^2+5x+6$

a) $(x-1)(x-6)$ b) $(x-2)(x-3)$ c) $(x+2)(x+3)$ d) $(x+1)(x+6)$

13. Solve: $(x-4)(x+5)=0$

a) $-4, 5$ b) $-5, 4$ c) $-4, -5$ d) $4, 5$

14. Solve by factoring: $x^2+3x-10=0$

a) $-3, 10$ b) $-10, 3$ c) $-2, 5$ d) $-5, 2$

15. Solve by factoring: $x^2-x=12$

a) $-3, 4$ b) $-4, 3$ c) $-2, 6$ d) $-6, 2$

16. Solve: $4x^2-9=0$

a) $-\frac{4}{9}, \frac{4}{9}$ b) $-\frac{9}{4}, \frac{9}{4}$ c) $-\frac{2}{3}, \frac{2}{3}$ d) $-\frac{3}{2}, \frac{3}{2}$

17. Solve by quadratic formula: $2x^2+5x-3=0$

a) $-1, 6$ b) $6, 1$ c) $\frac{1}{3}, -2$ d) $\frac{1}{2}, -3$

18. Solve by quadratic formula: $2x^2+4x=-1$

a) $\frac{-2\pm\sqrt{2}}{2}$ b) $\frac{-2\pm 4\sqrt{2}}{2}$ c) $\frac{-2\pm\sqrt{2}}{4}$ d) $\frac{-4\pm\sqrt{2}}{2}$

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19. The hypotenuse of a right triangle is 4 cm longer than the shortest side and 2 cm longer than the remaining side. Find the dimensions of the triangle.

a) 9, 7, 5 b) 10, 8, 6 c) 11, 9, 7 d) 12, 10, 8

20. Suppose you rent a car for 2 days at a rate of $25.00 per day, plus $0.20 per mile. How many miles could you drive for a rental charge of $90.00?

a) 100 miles b) 150 miles c) 200 miles d) 300 miles

21. Three times the sum of two consecutive integers is 75. Find the integers.

a) 33, 42 b) 10, 15 c) 12, 13 d) 37, 38

22. On a certain day the XYZ Stock Exchange reported that 850 stocks went up, 500 stocks went down, and 650 were unchanged. What is the ratio of losers to the total number of stock?

a) 4:1 b) 1:4 c) 5:1 d) 1:5

23. A supermarket is selling a certain kind of cracker for $0.98 for a 10-ounce box and $1.20 for a 12-ounce box. What is the better buy?

a) both are bad b) both are good c) 12-oz box d) 10-oz box

24. The corresponding sides of similar triangles are in proportion. The sides of the smaller triangle are 3, 4, and 5 inches. The sides of the bigger triangle are $x$, 10, and $y$ inches. Find $x$.

a) $7\frac{1}{2}$ inches b) $12\frac{1}{2}$ inches c) 6 inches d) 10 inches

25. The distance a body falls from rest is directly proportional to the square of the time it falls. If an object falls 64 feet in 2 seconds, how far will it fall in 6 seconds?

a) 576 feet b) 192 feet c) 48 feet d) 16 feet

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**ANSWER SHEET**

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