

Algebra 1 – 3rd Edition – On-line Test 22 – July 2005

1. Are the equations $y = 2x + 5$ and $y = 5x + 2$ consistent, inconsistent, or dependant ?

- [A] consistent [B] inconsistent [C] dependant
[D] Both A and C [E] None of these

2. Given $f(x) = 3x^3 - 4x^2 + x - 1$, what is $f(2)$?

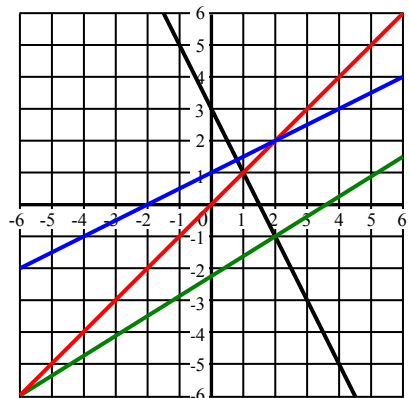
- [A] 0 [B] -16 [C] 43 [D] -1 [E] None of these

3. Find the domain of the function $f(x) = \sqrt{x + 10}$

- [A] $\{x \in \text{Real Numbers} \mid x \geq 0\}$ [B] $\{x \in \text{Real Numbers} \mid x \geq 10\}$
[C] $\{x \in \text{Real Numbers} \mid x \leq 0\}$ [D] $\{x \in \text{Real Numbers} \mid x \geq -10\}$
[E] None of these

4. Which ordered pair is the solution of the graphed equations $y = -2x + 3$ and $y = \frac{5}{8}x - \frac{9}{4}$?

- [A] (1, 1) [B] (-2, 0) [C] (2, -1)
[D] (-6, -6) [E] None of these



5. Rob and Charlie have 36 coins that are nickels and dimes. If the value of the coins is \$3.00, how many more dimes than nickels do they have ?

- [A] 0 [B] 12 [C] -6 [D] -12 [E] None of these

6. Multiply and simplify: $(4\sqrt{12})(3\sqrt{6})$

- [A] $12\sqrt{6}$ [B] $14\sqrt{2}$ [C] $72\sqrt{2}$ [D] $7\sqrt{18}$ [E] None of these
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7. Which set of ordered pairs is a function ?

- [A] (0, 0), (0, 3) [B] (1, 1), (1, -1) [C] (-2, -2), (-2, 2)

- [D] (5, 5), (-5, 5) [E] None of these
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8. Divide: $(4y^3 + 2y^2 - 3y - 4) \div y$

- [A] $4y^2 + 2y - 3$ [B] $(4y^2 + 2y - 3) - 4$ [C] $(-4y^2 - 2y + 3) + 4$

- [D] $4y^2 + 2y - 3 - \frac{4}{y}$ [E] None of these
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9. Simplify completely: $\sqrt{64 + 16}$

- [A] 12 [B] $4\sqrt{20}$ [C] $4\sqrt{5}$ [D] 32 [E] None of these
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10. George has \$3.60 in quarters and dimes. If he has 13 more quarters than dimes, how many dimes does he have ?

- [A] 3.5 [B] 7 [C] 15 [D] 1 [E] None of these
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11. Find the *range* of the data in this stem-and-leaf plot.

- [A] 209 [B] 120 [C] 89 [D] 136 [E] None of these

12. What is the *median* in this stem-and-leaf plot ?

- [A] 158 [B] 136 [C] 154 [D] 120 [E] None of these

Stem	Leaf
12	5, 2, 3, 0, 0
13	4, 3, 1, 5, 6, 2
15	2, 7, 8
18	4, 3
19	3, 3, 4
20	9, 0

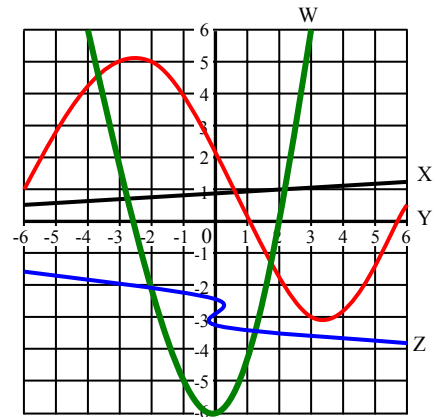
13. $R_0 T_0 = R_B T_B + 16$, $R_0 + R_B = 1$, $T_0 = 1$, $T_B = -6$. Find R_0 and R_B

[A] $R_0 = -2$, $R_B = 3$ [B] $R_0 = -3$, $R_B = 2$ [C] $R_0 = 2$, $R_B = -3$

[D] $R_0 = 3$, $R_B = -2$ [E] None of these

14. Which diagram in the graph at right is *not* a function?

[A] W [B] X [C] Y [D] Z [E] None of these



15. The product of 7 and a number is 12 greater than 5 times the number. What is the number?

[A] 1 [B] 16 [C] 35 [D] -8 [E] None of these

16. Divide: $(6x^3 - 3x^2 - 14x - 8) \div (x - 2)$

[A] $6x^2 - 3x - 14 - \frac{8}{x-2}$ [B] $-6x^2 - 9x - \frac{18}{x-2}$ [C] $6x^2 - 15x - 44 - \frac{16}{x-2}$

[D] $6x^2 + 9x + 4$ [E] None of these

17. Multiply and simplify: $3\sqrt{6}(2\sqrt{24} + 3\sqrt{2})$

[A] $72 + 18\sqrt{3}$ [B] $30\sqrt{6} + 18\sqrt{3}$ [C] $6\sqrt{134} + 18\sqrt{3}$

[D] $6\sqrt{134} + 3\sqrt{8}$ [E] None of these

18. Solve by factoring: $x^2 = x + 20$

[A] $x = 5, 4$ [B] $x = 20$ [C] $x = 4\sqrt{5}$ [D] $x = -4, -5$ [E] None of these

19. Find three consecutive integers so that the sum of the first and third is 64.

[A] 1, 3, 5 [B] 2, 3, 32 [C] 31.5, 32.5, 33.5 [D] 31, 32, 33 [E] None of these

20. Solve by factoring: $12 = -7x - x^2$

[A] $x = \frac{-7 - \sqrt{97}}{2}, \frac{-7 + \sqrt{97}}{2}$ [B] $x = \frac{7 + \sqrt{97}}{2}, \frac{7 - \sqrt{97}}{2}$

[C] $x = 0, \sqrt{12}$ [D] $x = -3, -4$ [E] None of these
