

Algebra 8r February Review Quiz (Mazzeo 2009-2010)

Multiple Choice Identify the choice that best completes the statement or answers the question.

- ____ 1. Simplify the expression $(x^3y^4)(x^5y^3)$?
A. x^8y^7 C. none of these E. $x^{15}y^{12}$
B. x^2y^1 D. x^9y^{12}
- ____ 2. Solve the equation for x . $-3x + 5 = 26$
A. $x = -6$ C. none of these E. $x = -7$
B. $x = 6$ D. $x = 11$
- ____ 3. What is the **decay rate** for the equation $y = 50,000(0.85)^x$?
A. .15 C. 50,000 E. 1.85
B. none of these D. .85
- ____ 4. What is the y-intercept of the equation $y = -4x - 16$?
A. $(-16,0)$ C. $(0,16)$ E. $(-4,0)$
B. none of these D. $(0,-4)$
- ____ 5. The equation for the areas of rectangles with a certain fixed perimeter is $A = l(20 - l)$, where l is the length in meters. What is the fixed perimeter?
A. $20m$ C. $400m$ E. none of these
B. $100m$ D. $40m$
- ____ 6. What is the growth factor for the equation $y = 23(2)^x$?
A. 2 C. 1 E. none of these
B. 46 D. 23
- ____ 7. What is the slope of the line passing through the points $(2,5)$ and $(4,9)$?
A. -0.5 C. 0.5 E. -2
B. none of these D. 2
- ____ 8. Which expression is equal to one million?
A. none of these C. 10^6 E. 100^2
B. 6^{10} D. 2^{10}
- ____ 9. What is the y-intercept of equations graph of $y = 200(3)^x$?
A. $(200,0)$ C. $(0,3)$ E. $(3,0)$
B. none of these D. $(0,200)$
- ____ 10. The equation for the areas of rectangles with a certain fixed perimeter is $A = l(20 - l)$, where l is the length in meters. What is the maximum area for a rectangle with this perimeter?
A. $20m^2$ C. $100m^2$ E. $40m^2$
B. $400m^2$ D. none of these

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Answer Section

MULTIPLE CHOICE

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