

Algebra 1 Mastery Test Review #8 #2

1. Write an equation of the line that passes through $(-2, 2)$ and is parallel to the line $y = -4x - 3$.

Solve the system:

2. $2x - y = 4$
 $2x + y = -4$

Simplify:

3. $(w^5 c^7)(-6w^3 c)$

Simplify the expression using positive exponents.

4. $\left(\frac{j^5}{k^9}\right)^8$

5. Rewrite using only positive exponents: $4a^{-2}b^2c^3$

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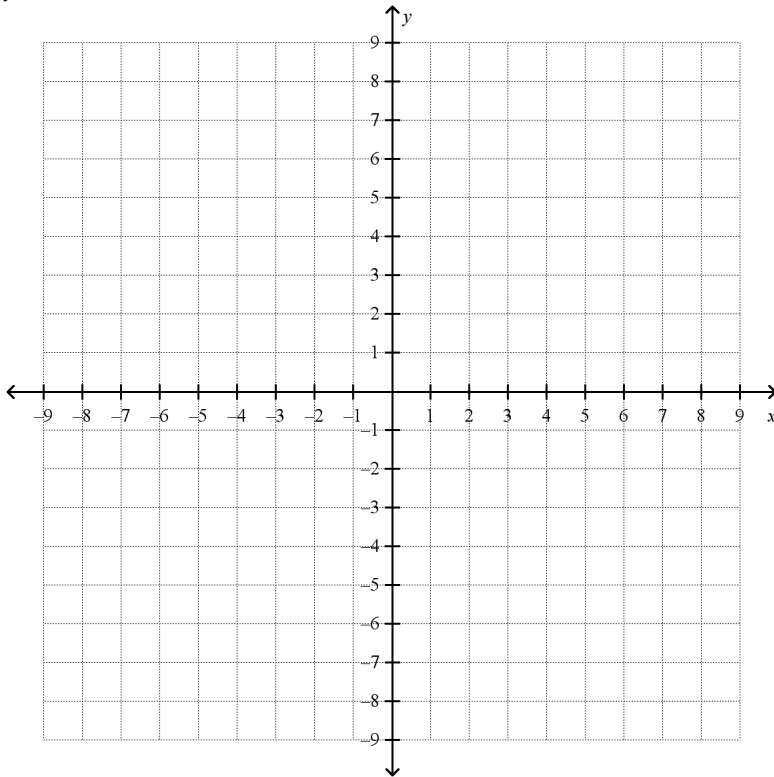
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6. The amount of money, A , accrued at the end of n years when a certain amount, P , is invested at a compound annual rate, r , is given by $A = P(1+r)^n$. If a person invests \$160 in an account that pays 7% interest compounded annually, find the balance after 10 years.

7. Find the value of \$1000 deposited for 8 years in an account paying 8% annual interest compounded semiannually.

Graph the function.

8. $y = 5^x$



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Find the sum.

9. $(2m^6 + 3m^2 - 5) + (-2m^2 + 6 + 5m^6)$

Find the difference.

10. $(9b^5 + 6b^2 + 6) - (5b^5 - 9b^2 + 5b - 3)$

Find the product.

11. $(x + 2)(x - 3)$

Find the product.

12. $(9c + 5)(9c - 5)$

13. Solve the equation $(x - 7)(x + 2) = 0$.

Factor the polynomial.

14. $x^2 - 15x + 54$

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15. $x^2 - 3x + 2$

Solve the equation.

16. $x^2 + 3x - 28 = 0$

17. $x^2 - 2x - 24 = 0$

Factor the trinomial.

18. $7x^2 + 15x + 2$

Solve the equation.

19. $9p^2 + 42p + 49 = 0$

Algebra 1 Mastery Test Review #8 #2
Answer Section

1. ANS:
 $y = -4x - 6$

TOP: Lesson 4.5 Write Equations of Parallel and Perpendicular Lines

2. ANS:
 $(0, -4)$

TOP: Lesson 6.3 Solve Linear Systems by Adding or Subtracting

3. ANS:
 $-6w^8c^8$

TOP: Lesson 7.1 Apply Exponent Properties Involving Products

4. ANS:
 $\frac{j^{40}}{k^{72}}$

TOP: Lesson 7.2 Apply Exponent Properties Involving Quotients

5. ANS:
 $\frac{4b^2c^3}{a^2}$

TOP: Lesson 7.3 Define and Use Zero and Negative Exponents

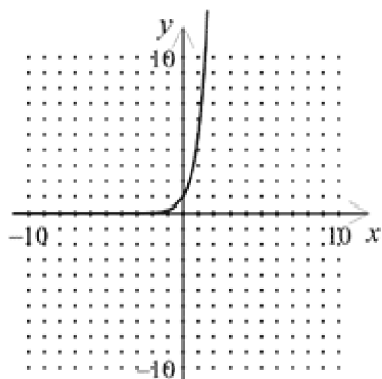
6. ANS:
\$315

TOP: Lesson 7.4 Write and Graph Exponential Growth Functions

7. ANS:
\$1872.98

TOP: Lesson 7.4 Write and Graph Exponential Growth Functions

8. ANS:



TOP: Lesson 7.4 Write and Graph Exponential Growth Functions

9. ANS:

$$7m^6 + m^2 + 1$$

TOP: Lesson 8.1 Add and Subtract Polynomials

10. ANS:

$$4b^5 + 15b^2 - 5b + 9$$

TOP: Lesson 8.1 Add and Subtract Polynomials

11. ANS:

$$x^2 - x - 6$$

TOP: Lesson 8.2 Multiply Polynomials

12. ANS:

$$81c^2 - 25$$

TOP: Lesson 8.3 Find Special Products of Polynomials

13. ANS:

$$7, -2$$

TOP: Lesson 8.4 Solve Polynomial Equations in Factored Form

14. ANS:

$$(x - 6)(x - 9)$$

TOP: Lesson 8.5 Factor $x^2 + bx + c$

15. ANS:

$$(x - 1)(x - 2)$$

TOP: Lesson 8.5 Factor $x^2 + bx + c$

16. ANS:

$$-7, 4$$

TOP: Lesson 8.5 Factor $x^2 + bx + c$

17. ANS:
-4, 6

TOP: Lesson 8.5 Factor $x^2 + bx + c$

18. ANS:
 $(7x + 1)(x + 2)$

TOP: Lesson 8.6 Factor $ax^2 + bx + c$

19. ANS:
 $p = -\frac{7}{3}$

TOP: Lesson 8.7 Factor Special Products