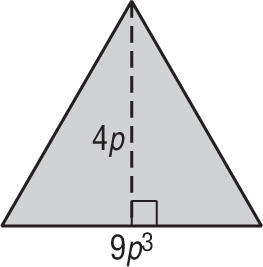
**Algebra 1 Practice Final** (I will be choosing 30 of these!)

*(Chapters 7-9)*

**1.** Express the area of the triangle as a monomial.

**2.** Simplify

**3.** Solve = 125.

**4.** Solve (7.5 × )(3.2 × ). Write your answer in both standard and scientific notation.

**5.** The population of Las Vegas, Nevada has been increasing at an annual rate of 5.0%. If the population of Las Vegas was 386,575 in 1998, predict its population in 2016.

**6.** A new motor home costs $75,000. It is expected to depreciate 7% each year. Find the value of the motor home in 5 years.

**7.** Write an equation for the *n*th term of the geometric sequence

–4, 8, –16, 32, … .

**8.** Find (3 – 8*c* + 5) – ( – 8*c* – 6).

**9.** Solve *x*(*x* + 3) – 2 = 2 + *x*(*x* + 1).

**Find each product.**

**10.** (*x* – 2)(*x* + 9)

**11.** (3*x* + 2)(4 – 2*x* – 7).

**12.**

**13.** (3*y* + 4*z*)(3*y* – 4*z*)

**1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Algebra 1 Practice Final** *(continued)*

**Factor each polynomial.**

**14.** 12*z* – 24*z* + 16

**15.**  + 12*m* – 28

**16.** 3 – 20*p* + 12

**17.** 3 – 75

**18.** The area of a square is 25 + 70*x* + 49 square inches. What is the length of the side of the square?

**Solve each equation.**

**19.** 10 = –20*y*

**20.**  = 13*y* – 42

**21.**  + 64 = 16*m*

**22.** Write the equation of the axis of symmetry, and find the coordinates of the vertex of the graph of *y* = + 10*x* + 16. Then graph *y* = + 10*x* + 16.

**23.** Find the value of *c* that makes – 26*x* + *c* a perfect square trinomial.

**24.** State the value of the discriminant for 2 + 5*x* + 2 = 0.

**25.** Solve 5 + 13*x* = 6 by using the Quadratic Formula. Round to the nearest tenth if necessary.

*(Chapters 10–12)*

**Simplify each expression.**

**26.**

**27.**

**28.** 3 + – 2

**29.** ( – 4) ( + 4)

**14. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**15. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**16. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**17. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**18. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**19. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**20. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**21. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**22. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**23. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**24. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**25. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**26. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**27. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**28. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**29. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Algebra 1 Practice Final** SCORE \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**30.** Solve + 3 = 7

**31.** Determine whether side measures 7, 5, and form a right triangle.   
Justify your answer.

**32.** Solve = *x* + 3.

**33.** Write an inverse variation equation that relates *x* and *y* if *y* = 0.8 when *x* = 1.8. Then find *y* when *x* = 4.8.

**34.** Simplify . State the excluded value(s) of *x*.

**Find each sum, difference, product or quotient.**

**35.** · .

**36.**  ÷ .

**37.**  +

**38.**  –

**39.** Solve – = . State any extraneous solutions.

**40.** Simplify .

**30. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**31.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**32.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**33.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**34.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**35.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**36.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**37.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**38.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**39.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**40.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_