

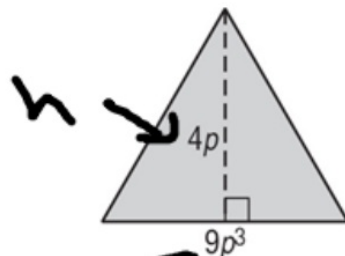
Algebra 1 Practice Final (I will be choosing 30 of these!)

(Chapters 7-9)

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

$$A = \frac{1}{2}bh$$

$$= \frac{1}{2}(4p)(9p^3)$$



1. 18 p⁴

$$\cdot \frac{n^{24}}{9}$$

2. Simplify $\frac{(3y^{-4}n^{-6})^{-2}}{(y^2n^{-3})^4}$

$$\frac{3^{-2} \cancel{y^8} n^{12}}{\cancel{y^8} n^{-12}} = \frac{n^{24}}{3^2}$$

2. _____

3. Solve $5^{x-2} = 125$.

$$5^{x-2} = 5^3$$

$$x-2=3$$

3. x = 5

4. Solve $(7.5 \times 10^{-5})(3.2 \times 10^7)$. Write your answer in both standard and scientific notation.

$$(7.5 \times 3.2)(10^{-5} \times 10^7) = 24 \times 10^2$$

4. 2400 and 2.4×10^3

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.

$$r = .05 \quad y = 386,575(1.05)^{18}$$

5. _____

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.

$$r = .07 \quad y = 75000(.93)^5$$

6. _____

$$\text{Total} = a(1+r)^n$$

a = original amount
 n = time

$$1 - .07$$

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

$-4, 8, -16, 32, \dots$

$$a_n = a_1 r^{n-1} \quad a_1 = -4 \quad r = -2 \quad y = 2(-2)^x$$

$$z = 2c^2 + 11$$

8. Find $(3c^2 - 8c + 5) - (c^2 - 8c - 6)$.



9. Solve $x(x + 3) - 2 = 2 + x(x + 1)$.

$$\cancel{x^2} + 3x - 2 = 2 + \cancel{x^2} + x$$

$$\underline{-x^2 - x + 2} \quad \underline{+2 - x^2 + x}$$

$$2x = 4$$

$$\underline{-}$$

$$2 = 2$$

9 $x = 2$

$x^2 + 7x - 18$

$x - 2$

10

x	x^2	$-2x$
9	$+9$	-18