

Unit 1 Review

Evaluate each using the values given.

1) $x + 4 - y - x^2$; use $x = 3$, and $y = -2$

2) $rp - p^3$; use $p = -3$, and $r = -5$

Simplify each expression.

3) $4x(x - 2) - 5x(2x + 4)$

4) $-3(1 + 3n) - 5(3 + 3n)$

5) $18\left(\frac{2}{9}x - \frac{1}{9}y - \frac{5}{6}x - 3y\right)$

6) $6\left(\frac{1}{3}y + \frac{1}{2}x - \frac{11}{3}x - \frac{1}{2}y\right)$

Solve each equation.

7) $p + \frac{19}{6} = -p + p$

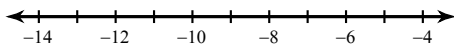
8) $p + \frac{1}{2} - \frac{1}{2} = \frac{9}{2} - 5p$

9) $x + \frac{1}{4} = \frac{25}{4} - 2x$

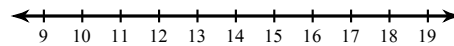
10) $\frac{1}{2}m + \frac{1}{6} = \frac{3}{2}m - \frac{11}{6}$

Solve each inequality and graph its solution.

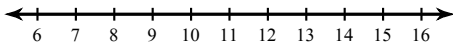
11) $-5 - r > 7$



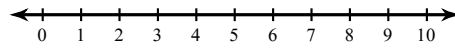
12) $9 \geq n - 4$



13) $88 \leq 8(v + 3)$

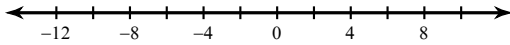


14) $-5(2x - 4) > -2(x + 6)$

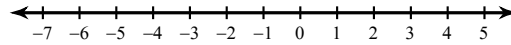


Solve each compound inequality and graph its solution.

15) $-43 \leq 2 - 5p < 52$



16) $-3x \leq 0$ or $x - 9 < -10$



Solve each equation. Write non-interger answers in fractional form.

17) $|-7x| = 49$

18) $7|k + 8| = 70$

19) $4|-4p - 1| + 6 = 10$

20) $-3|1 - x| - 2 = -14$

21) $\left|\frac{b}{7}\right| + 4 = 5$

22) $-5 + \left|\frac{n}{6}\right| = -7$

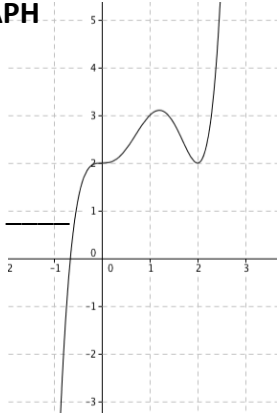
Solve for the indicated variable in parenthesis.

23) $A = \frac{1}{2}bh$ (h)

24) $4x - 5y = 9$ (y)

25) $\frac{a+b}{k} = 1$ (b)

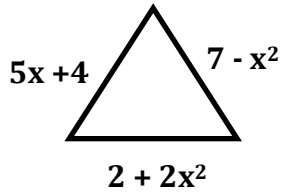
26) $y = mx + b$ (x)

ALGEBRA SKILLZ!		
<p>GRAPH</p>  <p>a. $f(1) =$ _____</p> <p>b. y-intercept = _____</p> <p>c. $f(x) = 3$ when $x =$ _____</p> <p>d. x-intcepts = _____</p>	<p style="text-align: center;">SIMPLIFY</p> <p>Simplify the radical</p> <p>c. $\sqrt{60}$</p> <p>d. $5\sqrt{68}$</p>	<p style="text-align: center;">SOLVE:</p> <p>Solve for x. Hint: Use the LCM!!</p> <p>c. $\frac{x}{9} + \frac{2x}{3} = 14$</p> <p style="text-align: center;">FACTOR:</p> <p>d. $x^2 - 16x + 64$</p>

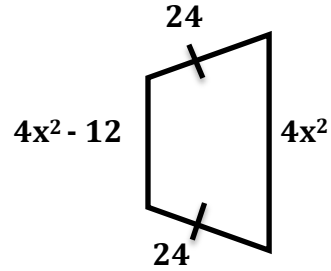
Application Unit 1 Review

Find the perimeter of each of the shapes pictured below:

1.



2.



3. As a twenty-year member of the Mariah Carey Fan Club, Sully gets to participate in a special monthly promotion. With a \$25 membership renewal fee, Sully can download any single for \$0.59 during the weekend. Sully then goes on a weekend spending spree!

- Write an expression that represents the total cost of Sully's weekend shopping spree assuming he pays for a renewal. Let s = the number of singles Sully purchases.
- Assume Sully purchases 57 singles. Using your expression, find the total cost for Sully, including the membership fee.

4. Mr. Bean loves to play sports- especially with his family! His goal is to field a team with just his family for each sport. In order to do this, he will need to have between 3 and 9 children, inclusive.

- Write a compound inequality that represents the number of children Mr. Bean would like.
- Write a compound inequality that represents the number of fingers Mr. Bean's family could have.

5. The distance (d in miles) travelled by a car is given by $d = 55t$ where t (in hours) is the time traveled by the car. The distance travelled can also be expressed by $d = 20g$ where g is the number of gallons of gasoline used by the car. Write an equation that expresses g as a function of t . (Hint: substitute for d)