

|Bummer| = Absolute bummer!

Name _____

Unit 1 Corrective Assignment

Period _____

Evaluate each using the values given.

1) $c - c - 3 - (c - a)$; use $a = -5$, and $c = -1$

2) $z^3 + x^2$; use $x = 6$, and $z = 2$

Simplify each expression.

3) $4x(2 + 2x) + 2(x - 1)$

4) $-6(5r - 3) - 4(r - 5)$

5) $12\left(\frac{1}{2}y + \frac{1}{6}x - \frac{11}{4}x - \frac{2}{3}y\right)$

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

Solve each equation.

7) $\frac{7}{5} = \frac{8}{5}x + 1 + \frac{2}{5}$

8) $\frac{37}{9} = \frac{7}{5}v + \frac{5}{3} - \frac{2}{3}v$

9) $-3n = -6n + 4n$

10) $8a - 5 = 5a + 1 + 6a$

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

11) $|7 + r| = 2$

12) $|x - 5| - 10 = -12$

$$13) 6 + 4|2b - 4| = 6$$

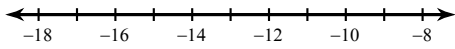
$$14) 5|4 + 4n| + 4 = 24$$

$$15) -10 + |6v| = 32$$

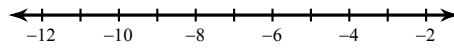
$$16) -3|x - 1| = -3$$

Solve each inequality and graph its solution.

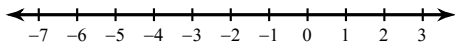
$$17) -5 \leq a + 6$$



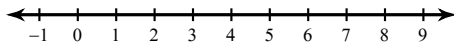
$$18) 96 < -4(2v - 8)$$



$$19) -2(8x - 1) > 82$$

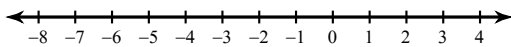


$$20) -7(1 + 6x) - 7(x + 1) > -63$$

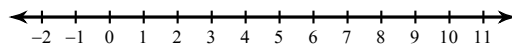


Solve each compound inequality and graph its solution.

$$21) 4 < 8 + a < 9$$



$$22) 3m - 1 > 23 \text{ or } 2 + m \leq 4$$



Solve for the indicated variable in parenthesis.

23) $AX + BY = C$ (Y)

24) $y - (t + d) = r$ (d)

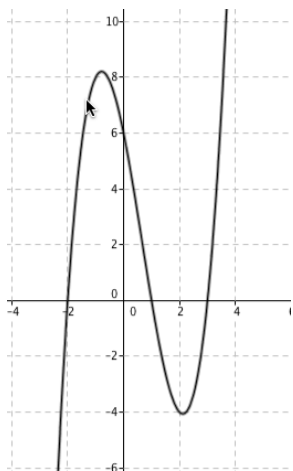
25) $\frac{R}{2A} = C$ (A)

26) $V = lwh$ (h)

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GRAPH

a. $f(2) =$



b. y-intercept =

c. $f(x) = 0$
when $x =$ _____

d. x-intercepts =

SIMPLIFY

Simplify the radical

a. $\sqrt{72}$

b. $5\sqrt{18}$

SOLVE:

Solve for x.

Hint: Use the LCM!!

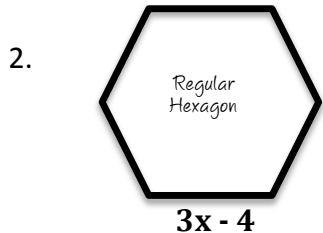
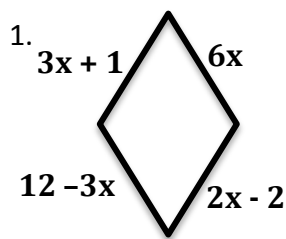
a. $\frac{5x}{18} + \frac{2x}{9} = 36$

FACTOR:

b. $x^2 + 2x + 1$

Application Unit 1 CA

Find the perimeter of each of the shapes pictured below:



3. Algebro shirts are all the rage! To make an Algebro new shirt, a company charges \$50 for a design set-up (one time fee), and then \$25 per shirt. You plan on ordering several shirts for your Algebro fan-club.

- Write an expression that models the total cost for the number of shirts you order including the design-set-up fee.
- Use your expression to find the total cost of ordering 25 shirts for your fan-club.

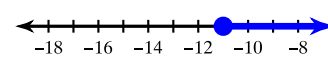
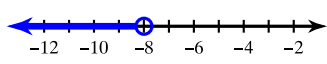
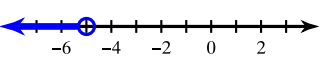
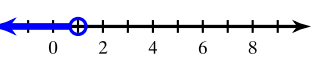
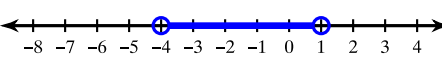
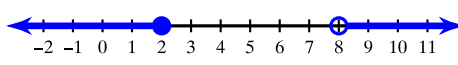
4. The perimeter of a rectangle is given by the formula $P = 2(w + l)$ where w is the width of the rectangle and l is the length of the rectangle.

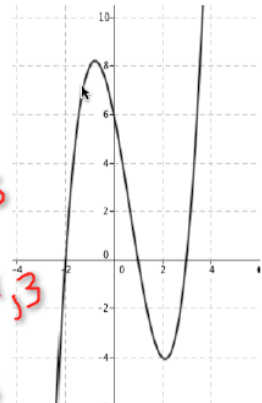
- Solve the formula for l .
- Use your formula to find the length of a rectangle that has a perimeter of 50 and a width of 15.

5. Bean loves to play Lazertag. To play at the local club, he has to pay \$15 to get in, and then \$3 per hour.

- Write an expression that will determine the cost of playing Lazertag for one afternoon.
- Use your expression to find the cost of playing Lazertag for 12 hours.

Answers to Unit 1 Corrective Assignment

- 1) -7 2) 44 3) $10x + 8x^2 - 2$ 4) $-34r + 38$
 5) $-31x - 2y$ 6) $-26x - 3y$ 7) $\{0\}$ 8) $\left\{\frac{10}{3}\right\}$
 9) $\{0\}$ 10) $\{-2\}$ 11) $\{-5, -9\}$ 12) No solution.
 13) $\{2\}$ 14) $\{0, -2\}$ 15) $\{7, -7\}$ 16) $\{2, 0\}$
 17) $a \geq -11$:  18) $v < -8$: 
 19) $x < -5$:  20) $x < 1$: 
 21) $-4 < a < 1$: 
 22) $m > 8$ or $m \leq 2$: 
 23) $\frac{C - AX}{B} = Y$ 24) $d = y - t - r$ 25) $A = \frac{R}{2C}$ 26) $h = \frac{V}{lw}$

ALGEBRA SKILLZ!		
<p style="text-align: center; font-weight: bold; color: blue;">GRAPH</p> <p>a. $f(2) = -4$</p>  <p>b. y-intercept = 6</p> <p>c. $f(x) = 0$ when $x = -2, 1, 3$</p> <p>d. x-intercepts = $-2, 1, 3$</p>	<p style="text-align: center; font-weight: bold; color: blue;">SIMPLIFY</p> <p style="text-align: center;">Simplify the radical</p> <p>a. $\sqrt{72}$</p> <p style="text-align: center;">$\sqrt{36 \sqrt{2}}$</p> <p style="text-align: center;">$6\sqrt{2}$</p> <p>b. $5\sqrt{18}$</p> <p style="text-align: center;">$5\sqrt{9 \sqrt{2}}$</p> <p style="text-align: center;">$15\sqrt{2}$</p> <p style="text-align: center; font-size: small;">Handwritten work: $\frac{4 \cdot 36}{18} = \frac{288}{36} = 8$, $9 \cdot 72 = 648$</p>	<p style="text-align: center; font-weight: bold; color: blue;">SOLVE:</p> <p>Solve for x. Hint: Use the LCM!</p> <p>a. $18 \frac{5x}{18} + \frac{2x}{9} = 36$</p> <p style="text-align: center;">$5x + 4x = 648$</p> <p style="text-align: center;">$9x = 648$</p> <p style="text-align: center;">$x = 72$</p> <p style="text-align: center; border: 1px solid red; padding: 2px;">FACTOR:</p> <p>b. $x^2 + 2x + 1$</p> <p style="text-align: center;">$(x+1)^2$</p>

APPLICATION

1. $8x + 11$
2. $5(3x - 4) = 15x - 20$
3. a. $C = 50 + 25x$ where C is the total cost and x is the number of shirts
 b. $25(25) + 50 = \$675$
- 4a. $L = (P - 2W)/2$
 b. 35
5. a. $C = \$15 + 3h$ where C is the cost and h is the number of hours
 b. $15 + 3(12) = \$51$