

Week 2 Homework

FOIL / Expand the following sets of parentheses –

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

$$(x + 5)(x - 6)$$

$$(3x - 5)^2 + 7(x - 3)$$

$$x(x + 3)^2 + 7$$

$$-(x - 4)^2 - 7$$

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

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

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

Factor the following equations and show what the solutions are. If you can't factor, use quadratic method:

$$x^2 - 10x + 21$$

$$x^2 - 12x + 36$$

$$3x^2 - 7x - 12$$

$$4x^2 - 12x - 28$$

Jesse put \$500 in Bank of FlipSetter with a 7.5% interest for 8 years. Shaw put \$700 into an offshore bank with a 7% interest for 10 years. Who has a better deal? By how much?

Betsy is a corn farmer in Ohio, and this year's crop has been good, and the market requested a big order from her! Betsy can chisel away at least 14 dozen ears of corn per hour and at most 18 dozen ears of corn per hour. Based on this information, what is a possible amount of time in minutes that it could take Betsy to husk 72 dozen ears of corn?

Systems of linear equations -

$$3y + 2x \leq 18$$

$$x > 2$$

$$5 \geq -y + 1/3x$$

Graph the lines and highlight the solution

$Y(x)$ is an inequality and passes through the origin and has the point (3,6) as shown on the graph. Line 2 (not shown) is perpendicular to $Y(x)$. Which of the following could be the equation for Line 2?

A. $y = -2x + 4$

B. $2y + x = 7$

C. $3y - 6x = 8$

D. $y = 2x + 7$