Do Now 9/24 & 9/25

On January 1, 2000, there were 175,000 tons of trash in a landfill that had a capacity of 325,000 tons. Each year since then, the amount of trash in the landfill increased by 7,500 tons. If y represents the time, in years, after January 1, 2000, which of the following inequalities describes the set of years where the landfill is at or above capacity?

A) $325{,}000 - 7{,}500 \leq y$

B) $325{,}000 \leq 7{,}500y$

C) $150{,}000 \geq 7{,}500y$

D) $175{,}000 + 7{,}500y \geq 325{,}000$

The distance traveled by Earth in one orbit around the Sun is about 580,000,000 miles. Earth makes one complete orbit around the Sun in one year. Of the following, which is closest to the average speed of Earth, in miles per hour, as it orbits the Sun?

A) 66,000

B) 93,000

C) 210,000

D) 420,000

Assigned HW

Friday, September 20, 2019 3:22 AM

-2-3 Textbook exercises: #17-30 due online (focus) 9/25 (blue) & 9/26 (gold)
-Pearson (online) : 2-2 & 2-3 Practice Exercises due 9/29

Instructions for Notes

Tuesday, September 24, 2019 2:42 AM

Class Notes Template

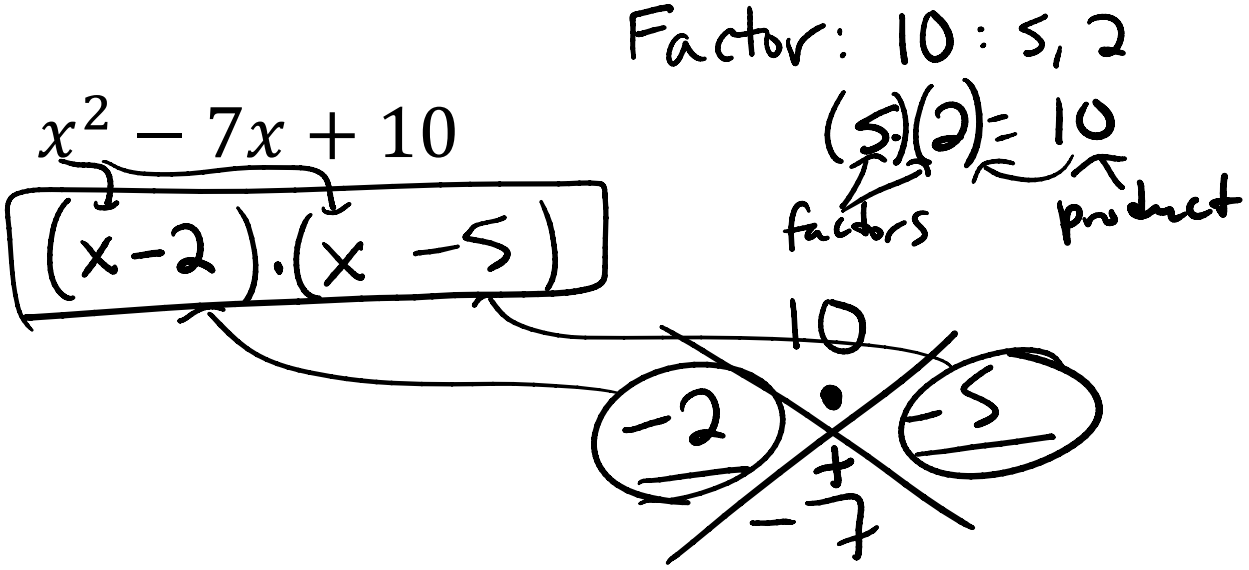
- 2-3 Class Notes Day 1 (Date) for the Title
- Write the Essential Question
- Write the learning goal

Write down question/ problem	Show work/ Write answer/Notes

Example 1

Friday, September 20, 2019 3:30 AM

Factor the quadratic expression:



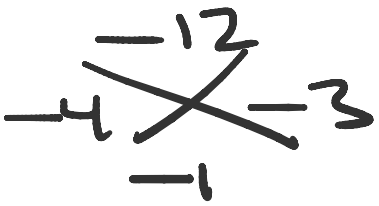
Question 1

Friday, September 20, 2019 3:36 AM

Factor the quadratic expression:

$x^2 - x - 12$

$(x-4)(x-3)$

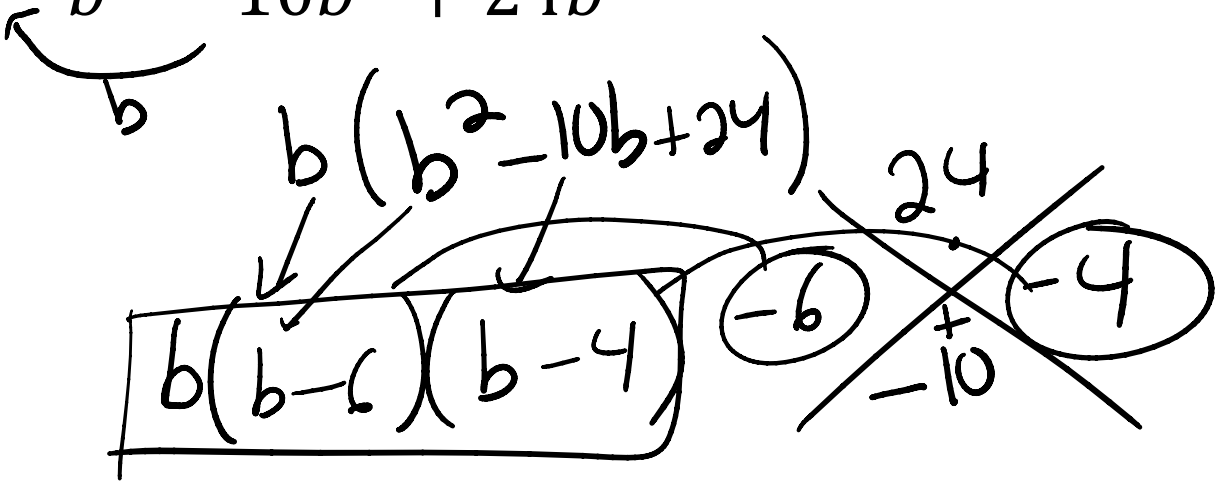


Example 2

Friday, September 20, 2019 3:51 AM

Factor the ~~quadratic~~ cubic expression:

$$b^3 - 10b^2 + 24b$$



Question 2

Factor the expression:

$x^3 - 3x^2 - 4x$

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

Example 3

Friday, September 20, 2019 3:42 AM

b

Factor the quadratic expression:

$1x^2 - 36 \Rightarrow 1x^2 + 0x - 36$

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

-36

$+6 \quad -6$

± 0

Question 3

Friday, September 20, 2019 3:45 AM

Factor the quadratic expression:

$x^2 - 64$ $(x-8)(x+8)$

$a^2 - b^2 = (a+b)(a-b)$

$4x^2 - 64 = (2x+8)(2x-8)$

Example 4

Factor the quadratic expression:

$2x^2 - 1x - 10$

ac-method:

① $a \cdot c = (2)(-10) = -20$

② -20, -5, $+4$, $+1$

③ Split middle term

$2x^2 - 5x + 4x - 10$

④ Factor by Grouping

$(2x^2 - 5x) + (4x - 10)$

x $\quad$ 2

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

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

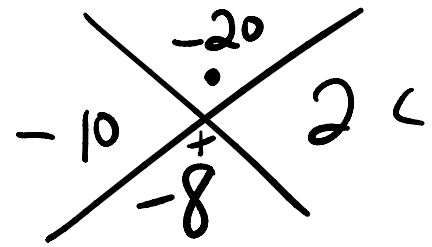
Question 4

Factor the quadratic expression:

$10x^2 - 8x - 2$

① $ac = (10)(-2) = -20$

②



③ $(10x^2 - 10x) + (2x - 2)$

$10x(x-1) + 2(x-1)$

$(x-1)(10x+2)$

$2(x-1)(5x+1)$