Today's Agenda:

1. 7.2 Concept Check
2. Check/Grade 7.3 WS
3. 7.3 Day 2 Lesson
4. Homework

What is our group name going to be?

7.2 Concept Check Questions

Use the Distributive Property to find the product.

2. $(b - 3)(b + 2)$

$b(b) + b(2) - 3(b) - 3(2)$

$b^2 + 2b - 3b - 6$

$b^2 - b - 6$

Use a two-way table to find the product.

8. $(y + 1)(y - 6)$

	y	$+1$
y	y^2	$+1y$
-6	$-6y$	-6

$y^2 - 5y - 6$

Use the FOIL Method to find the product.

16. $(2m - 1)(m + 2)$

$2m + 4m - 1m - 2$

$2m^2 + 3m - 2$

Find the product.

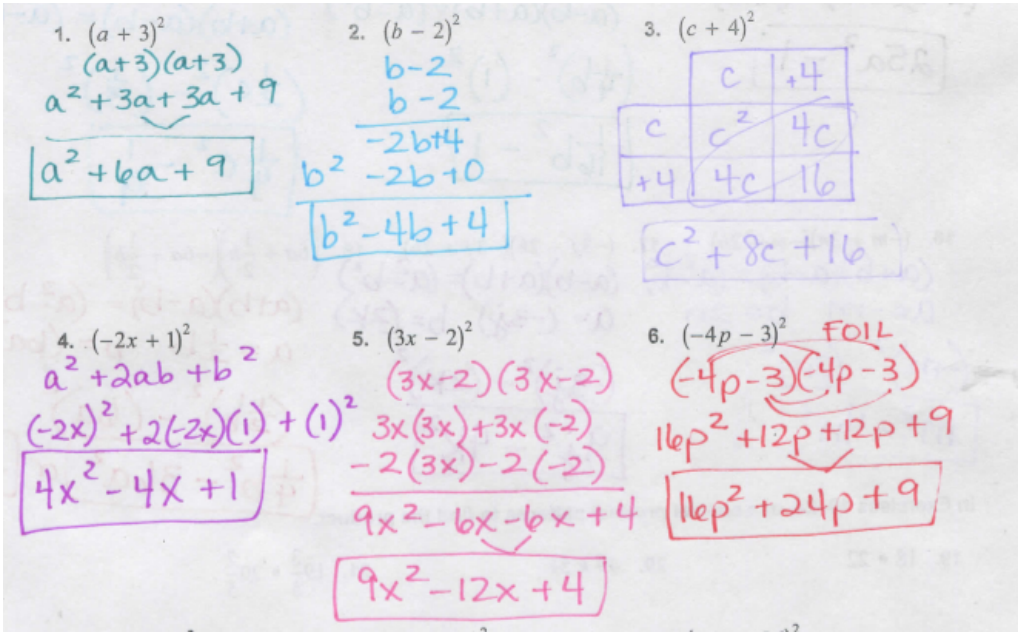
19. $(x - 2)(x^2 + x - 1)$

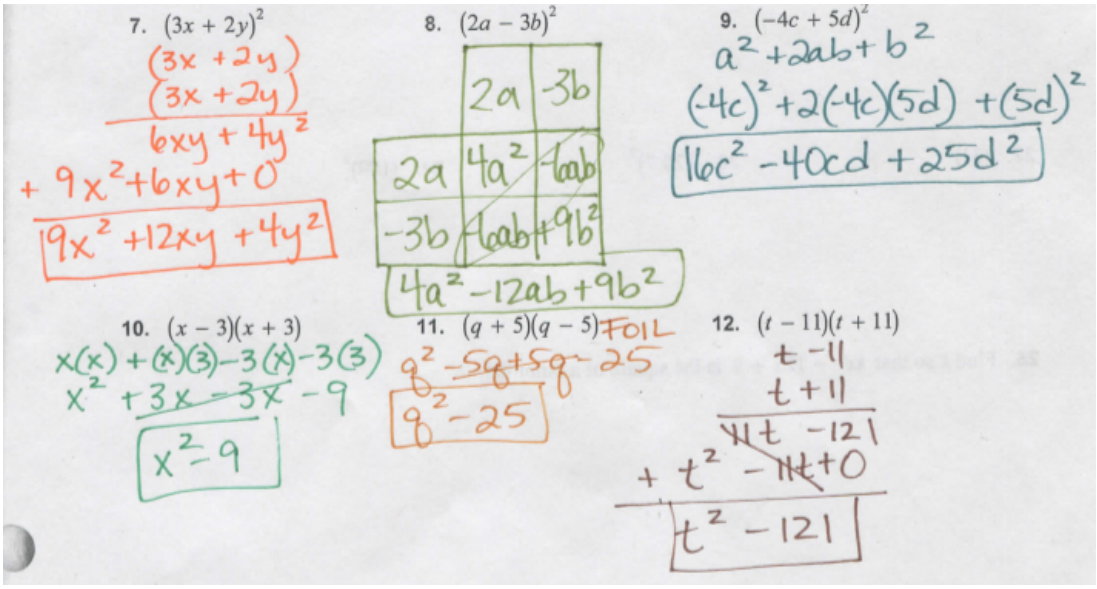
$x^3 + x^2 - 1x$

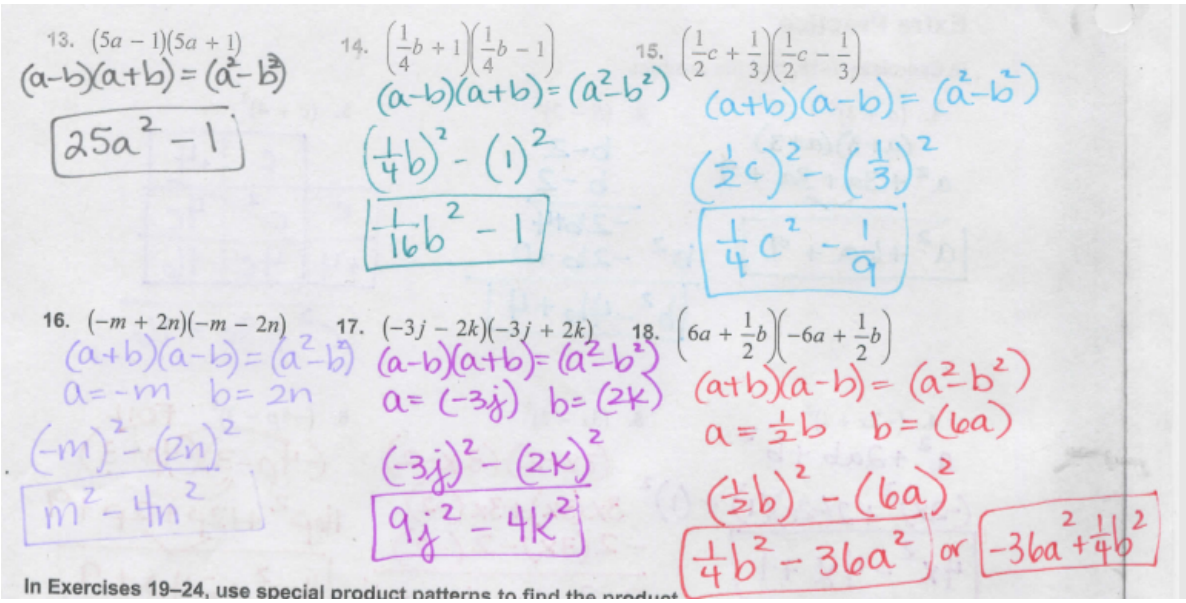
$+ \quad -2x^2 - 2x + 2$

$x^3 - x^2 - 3x + 2$

7.3 D1 WS Answers with work







7.3 Special Products (Day 2)

Review:

1) (w + 4)(w - 4) = $w^2 - 16$

2) $(3x + 4y)^2$ = FOIL $(3x + 4y)(3x + 4y)$

$9x^2 + 12xy + 12xy + 16y^2 = 9x^2 + 24xy + 16y^2$

3) $(0.5x - 0.1y)^2$ = $\left(\frac{1}{2}x - \frac{1}{10}y\right)\left(\frac{1}{2}x - \frac{1}{10}y\right)$

$\frac{1}{4}x^2 - \frac{1}{20}xy - \frac{1}{20}xy + \frac{1}{100}y^2$

$\frac{1}{4}x^2 - \frac{2}{20}xy + \frac{1}{100}y^2$

$\frac{1}{4}x^2 - \frac{1}{10}xy + \frac{1}{100}y^2$ $0.25x^2 - 0.1xy + 0.01y^2$

Feb 2-3:56 PM

Using special products with mental math:

1) 23 x 17, notice both numbers are +3 and -3 from 20. Write this product as a sum x difference and use your pattern.

$(20+3)(20-3)$

$400 - 9 = 391$

2) 21 x 21, write this as the square of a sum and use your pattern.

$(20+1)(20+1)$ $(10+11)(10+11)$ OR ↑

$400 + 20 + 20 + 1$

441

Feb 2-3:59 PM

RED FLAG: 3 weeks from now, what do you suppose is the main mistake students will make on $(x + 7)^2$?

$(x+7)(x+7)$

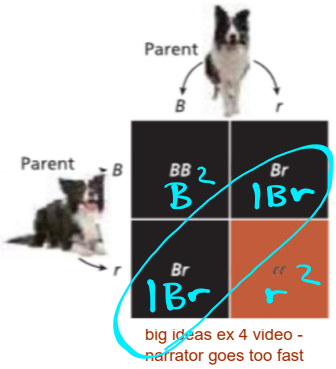
$(x + 7)^2$ is NOT $x^2 + 49$

$= x^2 + 14x + 49$

Feb 2-4:02 PM

A combination of two genes determines the color of the dark patches of a border collie's coat. An offspring inherits one patch color gene from each parent. Each parent has two color genes, and the offspring has an equal chance of inheriting either one.

The gene *B* is for black patches, and the gene r is for red patches. Any gene combination with a *B* results in black patches. Suppose each parent has the same gene combination *Br*. The Punnett square shows the possible gene combinations of the offspring and the resulting patch colors.



big ideas ex 4 video - narrator goes too fast

a. What percent of the possible gene combinations result in black patches?

$\frac{3}{4} = 0.75$ 75%

b. Show how you could use a polynomial to model the possible gene combinations.

$(B+r)(B+r) = B^2 + 2Br + r^2$

$BB + 2Br + rr$

Feb 2-4:08 PM

7.3 Day 2 Special Products:

Assign p 375

A: 20, 22, 24, 28, 32, 34 (graph too), 38, 42, 50

B: 16, 18, 20, 26, 28, 32, 34 (graph too), 38, 40, 42, 48, 50

C: 4 - 10 (e), 14 - 24 (e), 32, 48

Feb 2-4:16 PM