Name: _____ Class Period: _____

5.2

Algebra I Agenda

Don't forget the last page!!

				Stamp
Monday	2/23/2015	Objective:	Greatest Common Factor	
		Assignment:	Practice #1-9	
Tuesday	2/24/2015	Objective:	Four-Term Factoring	
		Assignment:	Practice #1- 12	
Wednesday	2/25/2015	Objective:	Factoring Trinomials	
		Assignment:	Practice #1-12	
Thursday	2/26/2015	Objective:	Factoring Completely	
		Assignment:	Practice #1-10	
Friday	2/27/2015	Objective:	Quiz	
		Assignment:	5.2 Due Today	

Warm-Up Grade: _____ Final Weekly HW Grade: _____

Bellwork

Name: _____

Period: _____

Week of _____ - _____

Monday

thursday

Tuesday

Friday

Wednesday

CHALLENGE

Practice – Greatest Common Factor

pp 524 – 537

Name _____ Date _____ Period_____

Find the GCF of the given monomials.

1. $6x^2y$, $42x^2$
2. $8x^4y^3$, $4x^3y^3$, $12x^2y^3$
3. $9r^4s^2d^6$, $56w^2n^4$

Factor the polynomial expression.

4. $12h^4 + 8h^2 - 6h$
5. $-15f - 10f^2$
6. $32a^3b^2c^3 + 40a^2bc^3 - 16abc$
7. $32jk^2 - 16j^2k + 2jk$
8. $12x^3y^2z^4 + 8x^3yz^2$
9. $9a^5 + 27a^3 - 45a^2$

A. $9(a^5 + 27a^3 - 45a^2)$

B. $9a^2$

C. $9a^2(a^3 + 3a - 5)$

D. $3a^2(3a^3 + 9a - 15)$

Practice – Four Term Grouping **pp 524 – 537**

Name _____ Date _____ Period_____

Factor the polynomial expression using the box or the four-term grouping method.

1. $6x^3 + 4x^2 + 3x + 2$

2. $4b^3 - 6b^2 + 10b - 15$

3. $2m^3 - 2m^2 + 3 - 3m$

4. $-5k^2 + k^3 - 4k + 20$

5. $-8a^2 + 2a^3 - 12 + 3a$

6. $6x^3 + 18x^2 + x + 3$

7. $4t^3 + 7 + 4t + 7t^2$

8. $-24y^2 - 3y + 36 + 2y^3$

Match each polynomial with its correct factors.

9. $x^2 + 7x + 10$

10. $2x^3 + 5x^2 + 6x + 15$

11. $x^2 - 49$

12. $4x^2 + 4x - 3$

A. $(x+7)(x-7)$

B. $(2x-1)(2x+3)$

C. $(x+5)(x+2)$

D. $(x^2+3)(2x+5)$

Practice – Factoring

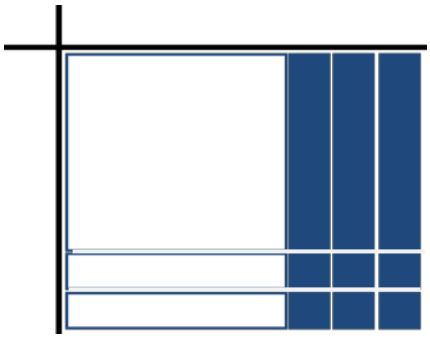
pp 540-571

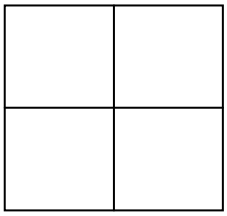
Name _____ Date _____ Period _____

Confused? Watch the video again: http://goo.gl/UCS19H Check your answers on twitter.

For the Algebra framework below, show the 'tile' factors, then write the polynomial and its factors.

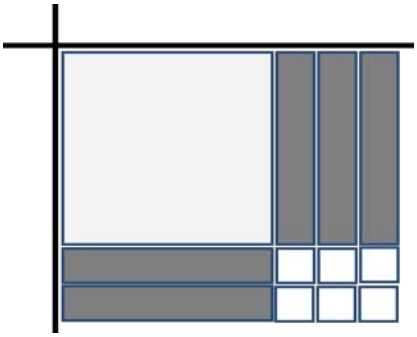
1.





Polynomial
Factors

2.



Polynomial: _____

Factors: _____

Factor the following:

3. $x^2 + 4x + 4$ = _____

4. $2x^2 + x - 6$ = _____

5. $25x^2 - 4$ = _____

6. $x^2 - 14x + 40$ = _____

7. $x^2 - 10x + 25$ = _____

8. $x^2 - 100$ = _____

9. $3x^2 - 4x - 15$ = _____

10. $x^2 - x - 20$ = _____

11. Which is the correct factorization of $x^2 - 10x - 24$?

A $(x-4)(x-6)$
B $(x+4)(x-6)$
C $(x-2)(x+12)$
D $(x+2)(x-12)$

12. Which product of binomials is represented by the model?

A $(x+4)(3x+5)$
B $(x+4)(5x+3)$
C $(x+3)(5x+4)$
D $(x+5)(3x+4)$

$5x^2$	$+4x$
$+15x$	$+12$

Algebra I - Unit 8: Topic 1 – Factoring Day 2

Practice – Factoring Day 2 **pp 540-571**

Name _____ Date _____ Period _____

Confused? Watch the video again: http://goo.gl/bhvO51. Check your work on twitter!

Factor each of the following polynomials completely, if possible.

1. $36a^3 - 4a =$ _____

2. $n^2 - 11n + 24 =$ _____

3. $4r^3 + 8r^2 - 12r =$ _____

4. $-2a^2 + 8a + 42 =$ _____

5. $8x^2 + 8x + 2 =$ _____

6. $x^2 - 3x + 8 =$ _____

7. What is the complete factorization of $20 - 245x^2$?

   A. $(x+70)(x-70)$

   B. $-5(2x+7)(2x-7)$

   C. $-5(7x+2)(7x-2)$

   D. $(7x+2)(7x-2)$

8. Which of the following products represents the trinomial $3x^2 + 9x - 30$?

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

   B. $3(x+5)(x-2)$

   C. $3(x+2)(x-5)$

   D. $3(x+10)(x-1)$

9. The area of a rectangle is represented by the trinomial $x^2 + 9x + 14$.

   A. Factor this trinomial to find the dimensions.

   B. If x = 5 cm, find the actual dimensions of the rectangle.

10. An arch frames the entrance into a garden. The shape of the arch is modeled by $12x - 3x^2$. Factor this polynomial completely.

Name _____ Date _____ Class _____

Test Preparation Practice

Algebra 1

A.4.A Find specific function values, simplify polynomial expressions, transform and solve equations, and factor as necessary in problem situations.

Solve each problem. Choose the best answer for each question and record your answer on the Student Answer Sheet. Figures are not drawn to scale

1. What is the value of $-2x^3 + 5x - 7$ when $x = -3$?

A 22

B 32

C 36

D 40

2. What is the area of the yard?

$3x + 4$

$x - 7$

F $3x^2 + 17x + 28$

G $3x^2 - 17x - 28$

H $-3x^2 - 17x + 28$

J $-3x^2 + 17x - 28$

3. Which expression is equivalent to $2(2x - 3) + 7x - 6$?

A $4x - 3 + 7x - 6$

B $2x - 6 + 7x - 6$

C $4x - 6 + 7x - 6$

D $2x - 3 + 7x - 6$

4. When the expression $-2x^2 + 5x - 3 - (-7 - 9x + 5x^2)$ is simplified, the coefficient on the x-term is:

F 5

G 9

H 11

J 14

5. For the function $f(x) = -75x^4 + 45$, what is the value of $f(x)$ when $x = -2$?

A -1355

B -1155

C -995

D -785

6. The following table shows Kim's pay, p, and the number of hours she works, t. One week she worked 4 hours. What was her pay for 4 hours of work?

t	p
2	\$23.00
5	\$57.50
7	\$80.50

F \$36.00

G \$46.00

H \$52.00

J \$65.00

7. A racquet club charges a one-time registration fee of \$55 plus \$25 per month to maintain a membership. What is the charge for a yearly membership?

A \$255

B \$300

C \$315

D \$355