

Correct from last day: pp. 115-116 # 3, 4abde, 11^d

READ pp. 118-119

pp. 120-121 # 9, 13, 16, 18

p. 116 # 11d

$$\begin{aligned} & 90x^2 - 120xy + 40y^2 \\ & = 10(9x^2 - 12xy + 4y^2) \\ & = 10(3x - 2y)^2 \end{aligned}$$

p. 121 # 13c

$$\begin{aligned} & 20x^2 + 9x - 18 \\ & = \underline{20x^2 - 15x} + \underline{24x - 18} \\ & = 5x(4x - 3) + 6(4x - 3) \\ & = (4x - 3)(5x + 6) \end{aligned}$$

$\begin{matrix} P: -360 \\ S: 9 \\ 1 \quad 360 \\ -15 + 24 \\ 18 \quad 20 \end{matrix}$

Please put your name at the top of each page, and submit:

Monday Feb. 26

p. 110 # 4, 5, 7bc, 9, 10, 13bd

Please put your name at the top of each page, and submit:

Thursday Feb. 22

pp. 99-100 #2, 3, 6, 7, 9, 14

Today's Learning Goal(s):

Date: Feb. 28/18
(Every lesson)

By the end of the class, I will be able to:

- a) factor "tricky" trinomials of the form $ax^2 + bx + c$, $a \neq 1$

MCF 3MI

2.4 Factoring Quadratic Expressions (Day 2)

Ex.1 Factor the following trinomials. (ALWAYS try to Common Factor FIRST)

a) $3x^2 + 13x - 10$ $P: -30$
 $S: 13$

$$= 3x^2 - 2x + 15x - 10$$

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

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

b) $12x^2 - 17x + 6$ $P: 72$
 $S: -17$

$$= 12x^2 - 8x - 9x + 6$$

$$= 4x(3x-2) - 3(3x-2)$$

$$= (3x-2)(4x-3)$$

c) $4x^2 - 3xy - 1y^2$ $P: -4$
 $S: -3$

$$= 4x^2 - 4xy + 1xy - y^2$$

$$= 4x(x-y) + y(x-y)$$

$$= (x-y)(4x+y)$$

d) $6x^2 - 7xy - 3y^2$ $P: -18$
 $S: -7$

$$= 6x^2 - 9xy + 2xy - 3y^2$$

$$= 3x(2x-3y) + y(2x-3y)$$

$$= (2x-3y)(3x+y)$$

e) $9x^2 - 15x + 6$ $P: 6$
 $S: 5$

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

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

$$= 3(3x(x-1) - 2(x-1))$$

$$= 3(x-1)(3x-2)$$

f) $6y^3 + 15y^2 - 36y$ $P: -24$
 $S: 5$

$$= 3y(2y^2 + 5y - 12)$$

$$= 3y(2y^2 - 3y + 8y - 12)$$

$$= 3y(y(2y-3) + 4(2y-3))$$

$$= 3y(2y-3)(y+4)$$

$\begin{array}{r} +30 \\ -2+5 \\ -3+10 \\ -5+6 \end{array}$

$\begin{array}{r} -1-72 \\ -2-36 \\ -3-24 \\ -4-18 \\ -6-12 \\ -8-9 \end{array}$

$\begin{array}{r} +1-4 \\ 2 \quad 2 \\ P: -24 \\ S: 5 \end{array}$

$\begin{array}{r} -1 \quad 24 \\ -2 \quad 12 \\ -3 \quad 8 \end{array}$

$\begin{array}{r} 1 \quad 18 \\ +2 \quad -9 \\ 3 \quad 6 \end{array}$

Practice: Factoring Worksheet #1-30 (posted in Google Classroom)

The Unit Summative is Friday... Work ahead!!

Copy the questions on a separate sheet of paper, and work out each answer below the question.

Remember: Since the Unit 2 Summative is this Friday, you want to get as much work done as possible before Thursday's class so you can ask questions during Thursday's review period.

MCF 3MI**Factoring Practice**

Copy each question in your workbook. Then, factor the following, completely.

- | | | |
|----------------------------------|----------------------------|-----------------------------|
| 1. $7x^2y - 28x^3y^2 + 21x^2y^3$ | 2. $x^2 - 7x + 12$ | 3. $x^2 - 23x + 76$ |
| 4. $m(2x - 1) - 5(1 - 2x)$ | 5. $2x^2 + 17x + 35$ | 6. $x^2 + 4x - 12$ |
| 7. $x^2 - 9x + 14$ | 8. $5y^2 + 27y - 18$ | 9. $4x^3 + 16x^2 - 84x$ |
| 10. $x^2 + 19x + 18$ | 11. $5x^2 + 4x - 1$ | 12. $8m^3 - 2m^2n - 21mn^2$ |
| 13. $x^2 + 5x - 14$ | 14. $4y^2 + 12yz + 9z^2$ | 15. $10x^4 + 21x^2 + 8$ |
| 16. $12x^2 + 26x - 10$ | 17. $x^2 + 4xy - 32y^2$ | 18. $5x^2 + 18x - 8$ |
| 19. $10x^2 + x - 21$ | 20. $x^2 + 4xy - 21y^2$ | 21. $4x^2 - 15x + 9$ |
| 22. $8x^2 - 14x - 15$ | 23. $8x^2 - 22xy - 21y^2$ | 24. $9x^2 - 18x - 135$ |
| 25. $4x^2 - 16x + 15$ | 26. $5x^2 - 19x + 12$ | 27. $3x^2 + 16x - 12$ |
| 28. $14y^2 + 77y - 147$ | 29. $16x^2 - 72xy + 81y^2$ | 30. $6a^4 - 21a^2 - 45$ |

Answers to Factoring Practice:

- | | | |
|------------------------|-------------------------|------------------------|
| 1. $7x^2y(1-4xy+3y^2)$ | 2. $(x-4)(x-3)$ | 3. $(x-19)(x-4)$ |
| 4. $(2x-1)(m+5)$ | 5. $(2x+7)(x+5)$ | 6. $(x+6)(x-2)$ |
| 7. $(x-7)(x-2)$ | 8. $(5y-3)(y+6)$ | 9. $4x(x+7)(x-3)$ |
| 10. $(x+18)(x+1)$ | 11. $(5x-1)(x+1)$ | 12. $m(2m+3n)(4m-7n)$ |
| 13. $(x+7)(x-2)$ | 14. $(2y+3z)(2y+3z)$ ** | 15. $(5x^2+8)(2x^2+1)$ |
| 16. $2(3x-1)(2x+5)$ | 17. $(x+8y)(x-4y)$ | 18. $(5x-2)(x+4)$ |
| 19. $(5x-7)(2x+3)$ | 20. $(x+7y)(x-3y)$ | 21. $(4x-3)(x-3)$ |
| 22. $(4x+3)(2x-5)$ | 23. $(4x+3y)(2x-7y)$ | 24. $9(x-5)(x+3)$ |
| 25. $(2x-3)(2x-5)$ | 26. $(5x-4)(x-3)$ | 27. $(3x-2)(x+6)$ |
| 28. $7(2y-3)(y+7)$ | 29. $(4x-9y)(4x-9y)$ ** | 30. $3(2a^2+3)(a^2-5)$ |