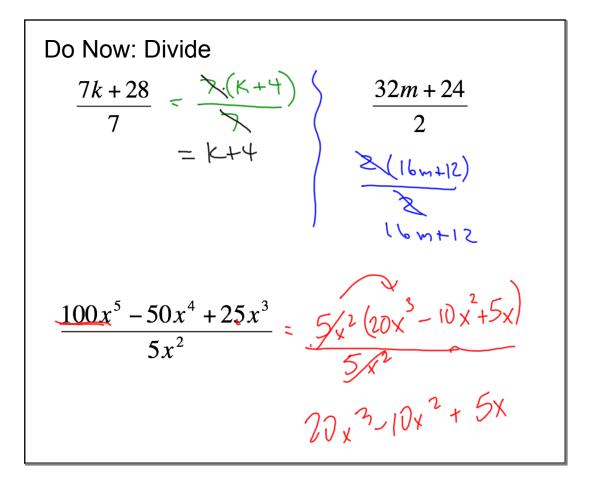
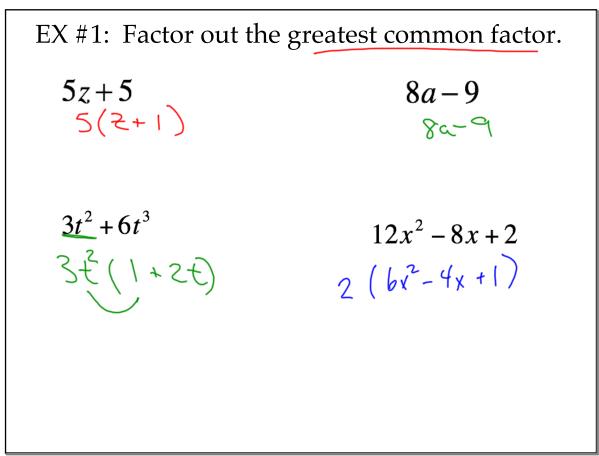
ALG III

10/31/17

Factoring Day #1 Greatest Common Factor





EX #2: Factor out the greatest common factor.

$$4x^{2}y + 6xy^{2} + 8x^{2}y^{2}$$

$$2 \times y (2 \times + 3y + 4 \times y)$$

$$5x^{4}y^{3} + 15x^{5}y^{6} - 20x^{4}y^{6} = 5 \times y^{3} (1 + 3 \times y^{3} - 4y^{3})$$

$$5x^{2}y^{2} (1 \times y^{3} + 5 \times y^{2} - 4x^{2}y)$$

$$-18x^{2} + 27x + 9$$

$$9(-2x^{2} + 3x + 1)$$

EX #3: Factor out the greatest common factor.

$$(a+2)(a-3)+(a+2)(a+6)$$

$$(\alpha+2)((a+2)+(a+6))$$

$$(\alpha+2)((\alpha+2)+(\alpha+6))$$

$$(\alpha+2)((2\alpha+3))$$

$$(y-1)(y+3)-(y-1)(y+4)$$

$$(y-1)((y+3)-(y-1)(y+4))$$

$$(y-1)((y+3)-(y-4))$$

EX #4: Factor by Grouping

$$\begin{pmatrix}
(6p-6x)+(rp-rx) & 6ax+12bx+a+2b \\
(a_{p-x}) + r & (p-x) & bx & (a+2b) + |(a+2b) \\
(q-x)(b+r) & (a+2b) & (bx+1)
\end{pmatrix}$$

EX #5: Factor by grouping.

$$kn + mn - k - n$$

 $kn - k + mn - k - m$
 $kn - k + mn - k - m$
 $kn - k + mn - k - m$
 $kn - k + mn - m$
 $k(n-1) + m(n-1)$
 $(k+m)(n-1)$

$$10x^{2}y^{2} - 18 + 15y^{2} - 12x^{2}$$

$$10x^{2}y^{2} + 15y^{2} - 18 - 12x^{2}$$

$$5y^{2}(2x^{2} + 3) - 6(3 + 2x^{2})$$

$$(5y^{2} - 6)(2x^{2}x^{3})$$

Assignment:

pg. 290 #7-12, 17-25 odd, 40, 43, 47, 45, 51