Do Now: Factor each completely

1) $25g^4 - 15g^3 + 5g$

$\frac{25g^4}{5g} \quad \frac{15g^3}{5g} \quad \frac{5g}{5g}$

$5g(5g^3 - 3g^2 + 1)$

GCF

2) $x^2 - 16d^2$

$(x-4d)(x+4d)$

DOTS

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

$\frac{2x^3}{x^2} \quad \frac{x^2}{x^2} \quad \frac{2x}{1} \quad \frac{1}{1}$

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

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

Grouping

Oct 31-2:26 PM

1) C 2) D 3) C 4) A 5) D 6) B

7)A 8) D 9) B 10) B 11) D

HW Answers

12) $8ab(4a - 5)$

13) $3(x^2 + 2x + 5)$

14) $12z(5c - 2z^2)$

15) $5pq(3p + 2q)$

16) $31p^2q^2(2q - 3p)$

17) $x^2y^{10}(128z - 1)$

18) $6y(3y^2 - 2y + 1)$

19) $(p - q)(r + s)$

20) $(p + 10)(p - 10)$

21) $(7p + 3q)(7p - 3q)$

22) $(9 + 2x)(9 - 2x)$

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

24) $7(x + 1)(x - 1)$

25) $n(2n + 7)(2n - 7)$

26) $3(3 + x)(3 - x)$

27) $4(5p + 3q)(5p - 3q)$

28) $3(z + 5)(z - 5)$

29) $7(3t + 1)(3t - 1)$

Mar 3-11:34 AM

TRINOMIAL FACTORING

A trinomial has 3 terms that are separated by addition or subtraction signs.

Standard form: $x^2 + bx + c$,

where b & c are real numbers

Oct 31-2:30 PM

To Factor

$$x^2 + bx + c = (x + m)(x + n)$$

OR

$$x^2 - bx + c = (x - m)(x - n)$$

where m and n multiply to give c and

m and n add to give b.

Oct 31-2:33 PM

Factor the following trinomials.

1. $a^2 + 10a + 16$

$x^2 + bx + c$

$\boxed{(a+2)(a+8)}$

C=16	B=10
4·4	4+4=8
2·8	2+8=10
1·16	

Check

	a	+8
a	a^2	8a
+2	2a	16

$a^2+10a+16$

2. $t^2 - 7t + 10$

x^2+bx+c

$\boxed{(t-2)(t-5)}$

C=10	B=-7
-2·-5	-2+-5=-7
-1·-10	~~-1+-10=-11~~

Oct 31-4:21 PM

Factor the following trinomials.

3. $t^2 - 18t + 81$

$(t-9)(t-9)$

C=81	B=-18
-3·-27	
-9·-9	

4. $x^2 - 7x + 6$

$(x-1)(x-6)$

C=6	B=-7

Oct 31-4:21 PM