Factoring Test Review

Factor each number into prime factors.

1. 42 2) 100 3) 210

Find the greatest common factor.

4) 12 and 15 5) 16 and 22

6) 16 and 64

Common Monomial Factors.

Factor each number into prime factors. Find the greatest common factor in each expression.

1. $10x-5$ 2. $16+4n$ 3. $2x+10$

Find the GCF. Re-write with the GCF on the outside of the parenthesis.

4. $5x^{2}+ 15$ 5. $4y+16y^{3}$ 6. $2x+ 6xy+ 12$

Factor

1) $x^{2}+8x+7=(X+ )(X+ )$ 2) $X^{2}+9X+20=\left(X+ \right)(X+ )$

3) $n^{2}+7n+6=\left(n+ \right)(n+ )$ 4) $r^{2}+10r+21=\left(r+ \right)( r+ )$

Factor and check by multiplication.

5)$ y^{2}+3y+2$ 6) $a^{2}+17a+16$ 7) $y^{2}+8y+15$

Factoring Trinomials Two differences

Factor. Make a factor the last term.

1) $x^{2}-12x+36$ 2) $x^{2}-8x+12$ 3) $n^{2}-7n+10 $4) $r^{2}-6r+5$

Factor and check by multiplication.

5)$ y^{2}-3y+2$ 6) $a^{2}-10a+25$ 7) $y^{2}-12y+27$

Factoring Trinomial Squares

Tell if the following are trinomial squares. (write yes or no)

1) $x^{2}+2x+1$ 2) $x^{2}+4x+4$ $ $

$ $3) $r^{2}+r+4$ 4) $x^{2}+4x+1$ $ $

Factor.

5)$ y^{2}+10y+25$ 6) $a^{2}+8a+16$

17) $x^{2}+12x+36$ 18) $x^{2}-4x+4$

Factoring Trinomials.

1) $x^{2}+4x-21$ 2) $x^{2}+6x-16$ 3)$ y^{2}-3y-18$

4) $n^{2}+3n-10$ 5) $r^{2}+2r-24$ 6) $y^{2}-9y-22$