Math 3

Name_____

Factoring Review From Math 2!

Date_____

Factor each completely.

1) $b^2 - 25$

$(b+5)(b-5)$

2) $k^2 - 9$

$(k+3)(k-3)$

3) $9n^2 - 4$

$(3n+2)(3n-2)$

4) $25x^2 - 16$

$(5x+4)(5x-4)$

Difference of Squares

5) $n^2 + 3n - 54$

$(n+9)(n-6)$

6) $x^2 - 11x + 28$

$(x-4)(x-7)$

7) $n^2 - 17n + 70$

$(n-7)(n-10)$

8) $r^2 + 2r - 8$

$(r-2)(r+4)$

9) $a^2 - 2a - 24$

$(a+4)(a-6)$

10) $r^2 + 4r - 21$

$(r-3)(r+7)$

11) $5x^3 - 65x^2 + 180x$

$5x(x-4)(x-9)$

12) $5k^2 + 25k$

$5k(k+5)$

GCF then X

13) $3x^4 - 18x^3 - 120x^2$

$3x^2(x+4)(x-10)$

14) $5n^2 + 5n - 280$

$5(n+8)(n-7)$

15) $3m^2 + 7m - 20$

$(3m-5)(m+4)$

16) $5k^2 + 38k - 16$

$(5k-2)(k+8)$

17) $7n^2 + 4n - 3$

$(7n-3)(n+1)$

18) $2a^2 + 17a + 8$

$(2a+1)(a+8)$

19) $10n^3 - 55n^2 - 450n$

$5n(2n+9)(n-10)$

20) $21k^3 + 135k^2 + 150k$

$3k(7k+10)(k+5)$

3 x -20

15) $3m^2 + 7m - 20$

-60 / 12 × -5 / 7

$(3m^2 + 12m)(-5m - 20)$

$\frac{3m^2}{3m} + \frac{12m}{3m}$ $\quad \frac{-5m}{-5} - \frac{20}{-5}$

$3m(m+4) - 5(m+4)$

$(m+4)(3m-5)$

20) $\frac{21k^3}{3k} + \frac{135k^2}{3k} + \frac{150k}{3k}$ $\quad$ GCF = 3k

$3k(7k^2 + 45k + 50)$

350 / 35 × 10 / 45

$(7k^2 + 35k)(+10k + 50)$

$7k(k+5) + 10(k+5)$

$3k(k+5)(7k+10)$