Factoring Test Review

For problems 1-6, identify the GCF.

1) 4 and 8 2) 35 and 21 3) 56 and 6

4) 3x2y5 and 9x4z3 5) 16ab3c7 and 6a4bc5 6) 10p5 and 6q3

For problems 7-12, identify the GCF, then factor out the GCF.

7) 3x2y5 + 9x4z3 8) 13xyz – 2x3z2

9) – 24a2b – 18a3b 10) –x3y8 + y2z9

11) 7a5c10 – 14a3b2c2 12) –39ab4c2 – 13a3b4c2

For Problems 13-20, factor the given quadratic.

13) x2 + 8x + 12 14) x2 + 5x + 6

15) x2 + 10x + 9 16) x2 + 33x + 90

How do you factor when all the terms are positive? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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17) x2 – 4x + 4 18) x2 – 7x + 6

19) x2 – 18x + 77 20) x2 – 12x + 27

How do you factor when the x-term (middle term) is negative? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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21) x2 – 7x – 30 22) x2 + 4x – 12

23) x2 – x – 30 24) x2 + 3x – 18

How do you factor when the last term is negative? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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25) –2x2 + 5x + 12 26) 9x2 + 9x + 2

27) 15x2 + 4x – 3 28) 2x2 + 7x + 5

29) 7x2 – 3x – 10 30) 4x2 + 8x – 5