Put the numbers in the correct position in each box. Write the product. Write the factors.

1. x2, 7x, -5x, -35

 Product: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. 2x2, 3x, 4x, 6

 Product: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. 4x2, x, 8x, 2

 Product: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. x2, -8x, -3x, 24

 Product: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Factor using the GCF

1. 3x6y + 12x2y4 + 9xy6
2. x3y4 + 9x2y
3. 24a2b2 + 80ab3 - 16a3b
4. 26ab6 – 39a3b3
5. 19x4yz2 – 4x3y2z

Factoring when everything is positive.

1. x2 + 10x + 21

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. x2 + 13x + 39

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. x2 + 3x + 2

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. x2 + 5x + 4

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. x2 + 14x + 49

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. x2 + 10x + 16

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. x2 + 8x + 15

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. x2 + 14x + 33

 Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

When all of the terms are positive, explain in your own words how to split the “x” term to factor.