Pull It Out: Worked Answers

Each problem solved the way the lesson does it.

Name: _____ Date: _____

1. Factor 4x + 12

   - GCF 4. 4x ÷ 4 = x, 12 ÷ 4 = 3.
   - Check: 4(x + 3) = 4x + 12.

   Answer: 4(x + 3)

2. Factor 10y + 15

   - GCF 5. 10y ÷ 5 = 2y, 15 ÷ 5 = 3.
   - Check: 5(2y + 3).

   Answer: 5(2y + 3)

3. Factor 12a − 18

   - GCF 6. 12a ÷ 6 = 2a, 18 ÷ 6 = 3.
   - Check: 6(2a − 3).

   Answer: 6(2a − 3)

4. Factor 9m + 6n

   - GCF 3. 9m ÷ 3 = 3m, 6n ÷ 3 = 2n.

   Answer: 3(3m + 2n)

5. Factor 8x + 24y + 8

   - GCF 8. 8x ÷ 8 = x, 24y ÷ 8 = 3y, 8 ÷ 8 = 1.
   - Leave the 1 in.

   Answer: 8(x + 3y + 1)

6. Leo factored 18x + 12 as 3(6x + 4). Is he finished? If not, finish it.

   - 6x and 4 still share a 2, so no.
   - GCF of 18 and 12 is 6: 6(3x + 2).

   Answer: Not finished. 18x + 12 = 6(3x + 2)

7 A rectangle has an area of $5x + 20$ square meters. One side is 5 meters. How long is the other side?

- Factor out 5: $5(x + 4)$.

Answer: $x + 4$ meters

8 Factor $14p + 21q + 7$

- GCF 7. $14p \div 7 = 2p$, $21q \div 7 = 3q$, $7 \div 7 = 1$.

Answer: $7(2p + 3q + 1)$