Prime Factorization Worksheet Answer Key

Prime Factors: Too Many 2s

1. Write the prime factorization for 160.

   2×80
   $2 \times 2 \times 40$
   $2 \times 2 \times 2 \times 20$
   $2 \times 2 \times 2 \times 2 \times 10$
   $2 \times 2 \times 2 \times 2 \times 2 \times 5$
   $2^5 \times 5$

2. Write the prime factorization for 39.

   3×13

3. Write the prime factorization for 615.

   3×205
   $3 \times 5 \times 41$

4. Write the prime factorization for 25.

   5×5
   5^2

5. Write the prime factorization for 63.

   3×21
   $3 \times 3 \times 7$
   $3^2 \times 7$

6. Write the prime factorization for 240.

   2×120
   $2 \times 2 \times 60$
   $2 \times 2 \times 2 \times 30$
   $2 \times 2 \times 2 \times 2 \times 15$
   $2 \times 2 \times 2 \times 2 \times 3 \times 5$
   $2^4 \times 3 \times 5$

7. Write the prime factorization for 32.

   2×16
   $2 \times 2 \times 8$
   $2 \times 2 \times 2 \times 4$
   $2 \times 2 \times 2 \times 2 \times 2$
   2^5

8. Write the prime factorization for 212.

   2×106
   $2 \times 2 \times 53$
   $2^2 \times 53$

9. Write the prime factorization for 64.

2×32
$2 \times 2 \times 16$
2^6

10. Write the prime factorization for 121.

11×11
11^2