

**EXTRA PRACTICE 11****Prime Factorization****Use after Section 3.2**

Name \_\_\_\_\_

EXAMPLE: Find the prime factorization of 140.

a) We divide by the first prime, 2.

$140 = 2 \cdot 70$

b) We continue to divide by primes.

$140 = 2 \cdot 2 \cdot 35$

$140 = 2 \cdot 2 \cdot 5 \cdot 7$

c) We are finished when we have a product of primes. The prime factorization is

$140 = 2 \cdot 2 \cdot 5 \cdot 7$

Find the prime factorization.

1.  $378 =$  \_\_\_\_\_

2.  $3135 =$  \_\_\_\_\_

3.  $550 =$  \_\_\_\_\_

4.  $625 =$  \_\_\_\_\_

5.  $572 =$  \_\_\_\_\_

6.  $1001 =$  \_\_\_\_\_

7.  $280 =$  \_\_\_\_\_

8.  $540 =$  \_\_\_\_\_

9.  $612 =$  \_\_\_\_\_

10.  $1848 =$  \_\_\_\_\_

11.  $2025 =$  \_\_\_\_\_

12.  $513 =$  \_\_\_\_\_

13.  $1320 =$  \_\_\_\_\_

14.  $372 =$  \_\_\_\_\_

15.  $138 =$  \_\_\_\_\_

16.  $128 =$  \_\_\_\_\_

17.  $3000 =$  \_\_\_\_\_

18.  $8550 =$  \_\_\_\_\_

19.  $139 =$  \_\_\_\_\_

20.  $146 =$  \_\_\_\_\_