

EXTRA PRACTICE 12
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. $146 =$ _____