

# Factoring numbers (<500) to prime factors

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## Grade 6 Factoring Worksheet

Factor the following numbers to their prime factors. Is the number prime?

1. 298 = \_\_\_\_\_ 2. 290 = \_\_\_\_\_

3. 24 = \_\_\_\_\_ 4. 360 = \_\_\_\_\_

5. 336 = \_\_\_\_\_ 6. 407 = \_\_\_\_\_

7. 53 = \_\_\_\_\_ 8. 45 = \_\_\_\_\_

9. 286 = \_\_\_\_\_ 10. 480 = \_\_\_\_\_

11. 467 = \_\_\_\_\_ 12. 146 = \_\_\_\_\_

13. 283 = \_\_\_\_\_ 14. 165 = \_\_\_\_\_

15. 394 = \_\_\_\_\_ 16. 441 = \_\_\_\_\_

17. 197 = \_\_\_\_\_ 18. 13 = \_\_\_\_\_

19. 81 = \_\_\_\_\_ 20. 378 = \_\_\_\_\_

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### Grade 6 Factoring Worksheet

Factor the following numbers to their prime factors. Is the number prime?

1.  $298 = 2 \times 149$  (No) \_\_\_\_\_ 2.  $290 = 2 \times 5 \times 29$  (No) \_\_\_\_\_

3.  $24 = 2 \times 2 \times 2 \times 3$  (No) \_\_\_\_\_ 4.  $360 = 2 \times 2 \times 2 \times 3 \times 3 \times 5$  (No) \_\_\_\_\_

5.  $336 = 2 \times 2 \times 2 \times 2 \times 3 \times 7$  (No) \_\_\_\_\_ 6.  $407 = 11 \times 37$  (No) \_\_\_\_\_

7.  $53 = 53$  (Yes) \_\_\_\_\_ 8.  $45 = 3 \times 3 \times 5$  (No) \_\_\_\_\_

9.  $286 = 2 \times 11 \times 13$  (No) \_\_\_\_\_ 10.  $480 = 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 5$  (No) \_\_\_\_\_

11.  $467 = 467$  (Yes) \_\_\_\_\_ 12.  $146 = 2 \times 73$  (No) \_\_\_\_\_

13.  $283 = 283$  (Yes) \_\_\_\_\_ 14.  $165 = 3 \times 5 \times 11$  (No) \_\_\_\_\_

15.  $394 = 2 \times 197$  (No) \_\_\_\_\_ 16.  $441 = 3 \times 3 \times 7 \times 7$  (No) \_\_\_\_\_

17.  $197 = 197$  (Yes) \_\_\_\_\_ 18.  $13 = 13$  (Yes) \_\_\_\_\_

19.  $81 = 3 \times 3 \times 3 \times 3$  (No) \_\_\_\_\_ 20.  $378 = 2 \times 3 \times 3 \times 3 \times 7$  (No) \_\_\_\_\_