

**8-3**  
EXERCISES

**Chapter 8**  
Factoring Polynomials

Homework Help Online

Online Support for Lesson 8-3 Homework

**GUIDED PRACTICE**

Click a video icon to see a Lesson Tutorial Video. Click a pencil icon to practice similar problems.



VIDEO

**See Example 1**

Factor each trinomial by guess and check.

1.  $x^2 + 13x + 36$

2.  $x^2 + 11x + 24$

3.  $x^2 + 14x + 40$



PRACTICE



VIDEO

**See Example 2**

Factor each trinomial. Check your answer.

4.  $x^2 + 4x + 3$

5.  $x^2 + 10x + 16$

6.  $x^2 + 15x + 44$

7.  $x^2 - 7x + 6$

8.  $x^2 - 9x + 14$

9.  $x^2 - 11x + 24$



PRACTICE



VIDEO

**See Example 3**

10.  $x^2 + 6x - 7$

11.  $x^2 + 6x - 27$

12.  $x^2 + x - 30$

13.  $x^2 - x - 2$

14.  $x^2 - 3x - 18$

15.  $x^2 - 4x - 45$



PRACTICE



VIDEO

**See Example 4**

16. Factor  $n^2 + 6n - 7$ . Show that the original polynomial and the factored form have the same value for  $n = 0, 1, 2, 3,$  and  $4$ .



PRACTICE

**PRACTICE AND PROBLEM SOLVING**

Click a video icon to see a Lesson Tutorial Video. Click a lightbulb icon to see a complete solution.



VIDEO

**Factor each trinomial by guess and check.**

17.  $x^2 + 13x + 30$

18.  $x^2 + 11x + 28$

19.  $x^2 + 16x + 48$



VIDEO

Factor each trinomial. Check your answer.

20.  $x^2 + 12x + 11$

21.  $x^2 + 16x + 28$

22.  $x^2 + 15x + 36$

23.  $x^2 - 6x + 5$

24.  $x^2 - 9x + 18$

25.  $x^2 - 12x + 32$



VIDEO

26.  $x^2 + x - 12$

27.  $x^2 + 4x - 21$

28.  $x^2 + 9x - 36$

29.  $x^2 - 12x - 13$

30.  $x^2 - 10x - 24$

31.  $x^2 - 2x - 35$



VIDEO

32. Factor  $n^2 - 12n - 45$ . Show that the original polynomial and the factored form have the same value for  $n = 0, 1, 2, 3,$  and  $4$ .



Factor each trinomial. Check your answer.

39.  $x^2 - 11x + 18$

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41.  $x^2 + 10x + 9$



43.  $x^2 + 13x + 42$



45.  $x^2 + 11x + 18$



47.  $x^2 + 5x - 24$



49.  $x^2 + 4x - 45$



**Art** Write the polynomial modeled and then factor.

55.

$x^2$	$2x$
$4x$	$-8$