

Name \_\_\_\_\_

**11-1B Lesson Master****Questions on SPUR Objectives**

See pages 708–711 for objectives.

**SKILLS** Objective A

In 1–10, simplify the expression.

1.  $(3a^2 + 7a - 5) + (2a^2 - 5a + 1)$   
\_\_\_\_\_

2.  $(39b - 28b^2) + (11b^2 - 13b)$   
\_\_\_\_\_

3.  $(9c^2 - 10c) - 3(5c^2 + 7)$   
\_\_\_\_\_

4.  $(d^2 + 2d) - (3d^2 + 3)$   
\_\_\_\_\_

5.  $(11e^3 + 7e) + (32e^2 - 24e)$   
\_\_\_\_\_

6.  $(6x^3 + 4x + 15) - (3x^3 + x^2 - 7)$   
\_\_\_\_\_

7.  $(2x^3 + 16x^2) + (x^3 - 3x^2)$   
\_\_\_\_\_

8.  $(8y^2 - 9y - 5) + (-5y + 1)$   
\_\_\_\_\_

9.  $(-3w^3 - 12) + (w^3 - w)$   
\_\_\_\_\_

10.  $(10g^3 - g + 22) - (12g^3 + 2g^2)$   
\_\_\_\_\_

In 11 and 12, solve the equation.

11.  $(4x^2 - 5x - 12) - (3x^2 + 2x - 24) = 0$   
\_\_\_\_\_

12.  $(5g^2 + 4g - 35) - (4g^2 + 6g) = 0$   
\_\_\_\_\_

13. *Multiple Choice.*  $m^7 + m^3 + m =$  \_\_\_\_\_

A  $3m^{11}$

B  $m^{10}$

C  $3m^{21}$

D none of these

In 14 and 15, find the missing polynomial.

14.  $(53j^2 + 7j - 21) + (\text{_____}) = (60j^2 + 7j - 30)$

15.  $(72k^3 + 16k^2 - 6k + 5) - (\text{_____}) = 62k^3 + 16k^2 - 13k + 2$

**USES** Objective FIn 16 and 17, write a polynomial to represent the total dollar amount of each investment that earns interest at a scale factor of  $x$ .

16. Lora deposits \$560 a year into her college tuition account for 6 years. \_\_\_\_\_

17. Lora deposits \$600 a year into her college tuition account for 5 years. \_\_\_\_\_

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**11-1B**

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18. On January 1, 2006, Abigail opened a bank account and began saving for a down payment on her next car. The account pays a 5% annual yield. Abigail will deposit \$800 on January 1 each year.

Year	Amount on January 1
2008	800
2009	$800x + 800$
2010	
2011	
2012	
2013	

a. The table shows how much Abigail has in the account the first two years on January 1. What is the value of  $x$  in the chart?

\_\_\_\_\_

b. Complete the table and find how much money Abigail will have on January 1 of each year.

\_\_\_\_\_  
\_\_\_\_\_

c. How many years should Abigail save her money if she wants to have a deposit of at least \$4,000?

\_\_\_\_\_

19. Brant receives a bonus check at the end of every year that represents the success of his company's sales. In 2008 his check was \$1,500, in 2009 it was \$1,700, in 2010 it was \$1,600 and in 2011 it was \$2,000. Each time he invested his bonus checks he added an additional \$500.

a. Write a polynomial representing his total investments by the end of 2011.

\_\_\_\_\_

b. Brant is planning a trip to Europe that will cost \$10,000. If his total investments have earned interest at a rate of 7%, has he made enough money at the end of 2011 to go on his trip? Explain.

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