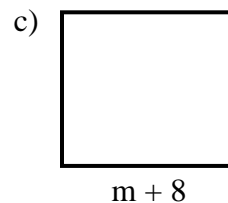
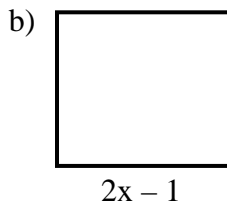
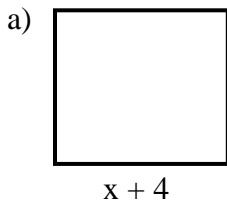

Lesson 5-3: Perfect Square Trinomial

1) Find the area of each square below.



Simplify.

2) $(x + 6)^2$

6) $(2k + 9)^2$

3) $(x - 3)^2$

7) $(3x - 6)^2$

4) $(a + y)^2$

8) $(10 - p)^2$

5) $(t - 1)^2$

9) $(7 - 4y)^2$

Factor the following.

10) $x^2 - 8x + 16$

15) $x^2 - 12x + 30$

11) $m^2 - 10m + 25$

16) $4y^2 + 12y + 9$

12) $k^2 + 20k + 100$

17) $9x^2 - 30x + 25$

13) $t^2 - 18t + 81$

18) $x^2 - 4xy + 4y^2$

14) $y^2 + 4y + 4$

19) $9a^4 - 6a^2b + b^2$

Lesson 5-3: Perfect Square Trinomial

State which of the following is not a perfect square trinomial. If it is a perfect square trinomial, then factor it.

20) $x^2 + 2x + 1$

24) $a^2 + 2a + 4$

21) $y^2 - 8y + 64$

25) $a^2 + 2ab + b^2$

22) $m^2 - 6m + 9$

26) $100 - 60b + 9b^2$

23) $x^2 - 14x - 49$

27) $4x^2 + 14x + 49$

Complete the perfect square trinomial and then factor it.

28) $x^2 + 12x + \square$

31) $k^2 + 14k + \square$

29) $y^2 - 4y + \square$

32) $y^2 - 18y + \square$

30) $m^2 - 20m + \square$

33) $x^2 - 16x + \square$

Factor completely. Show each step.

34) $3x^2 - 30x + 75$

36) $m^4 - 8m^2 + 16$

35) $5y^2 - 30y + 45$

37) $x^4 - 18x^2y^2 + 81y^4$

Review

38) State the domain of x.

a) $y = \frac{5}{x-3}$

b) $y = \sqrt{x}$

c) $y = |x|$

39) Order the following from least to greatest.

a) $\left(\frac{1}{2}\right)^3$

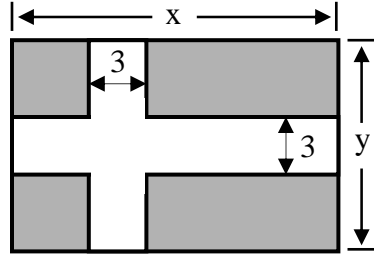
b) 3^{-2}

c) $(-8)^{\frac{1}{3}}$

d) 2^0

Lesson 5-3: Perfect Square Trinomial

40) Find the shaded area in terms of x any y .



41) Complete the chart.

Points	Slope	Linear Equation Slope-Intercept Form	Linear Equation Standard Form
(2, 3) (4, -8)			
(-1, ___) (5, 7)	$m = \frac{2}{3}$		