

# ANSWERS FOR 5.2

For use with pages 260–263

## 5.2 Guided Practice

2. The  $x$ -term is negative and its absolute value is greater than the absolute value of the constant term.
4.  $(x + 1)(x - 2)$
6.  $(x - 4)(x + 4)$
8.  $(p - 2)(p - 2)$
10.  $-3; 1$       12.  $-\frac{1}{3}; -3$
14. 7
16.  $y = (x - 1)(x - 5); 1, 5$
18.  $y = (x - 1)(x + 1); 1, -1$
20.  $y = 2(x - 4)(x + 3); 4, -3$
22. 2 ft
40.  $(5x - 2)(2x - 3)$
42.  $(11m - 8)(m + 2)$
44.  $(7u + 3)(u - 1)$
46. cannot be factored
48.  $(x + 2)^2$       50.  $(2r - 1)^2$
52.  $(4t - 3)(4t + 3)$
54.  $(5b - 6)^2$
56.  $5(x + 2)(x - 1)$
58.  $3(x + 9)^2$
60.  $7(4a - 3)^2$
62.  $6t(t - 6)$
64.  $2(d^2 + 6d - 8)$
66.  $-11; -8$       68.  $\frac{5}{4}; -\frac{1}{2}$

## 5.2 Practice and Applications

24.  $(x + 7)(x + 2)$
26.  $(x - 3)(x - 1)$
28. cannot be factored
30.  $(b + 9)(b - 3)$
32.  $(p - 6)(p + 1)$
34.  $(r - 18)(r + 4)$
36.  $(3x + 2)(x + 5)$
38.  $(5x - 2)(x - 1)$
70.  $\frac{5}{3}$       72.  $0; -\frac{1}{10}$
74.  $-4; -5$       76.  $7; -7$
78.  $\frac{1}{5}; 2$
80.  $y = (x - 2)(x - 1); 2, 1$
82.  $y = (x + 7)(x - 5); -7, 5$
84.  $y = (x + 10)^2; -10$

# ANSWERS FOR 5.2 (CONT.)

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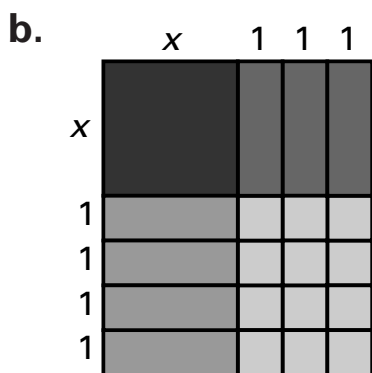
86.  $y = 3(x^2 - 4x - 5)$   
 $y = 3(x - 5)(x + 1); 5, -1$

88.  $y = (2x - 1)(x - 4); \frac{1}{2}, 4$

90. 0.5 ft      92. 5

94. 4

96. a. *Sample answer:* The area of the rectangle equals the sum of the areas of its parts. The area of the rectangle also equals the product of the lengths of its sides. So,  
 $x^2 + 5x + 6 = (x + 2)(x + 3).$



98. 20 ft by 40 ft

100. \$480; \$57,600

102. C      104. B

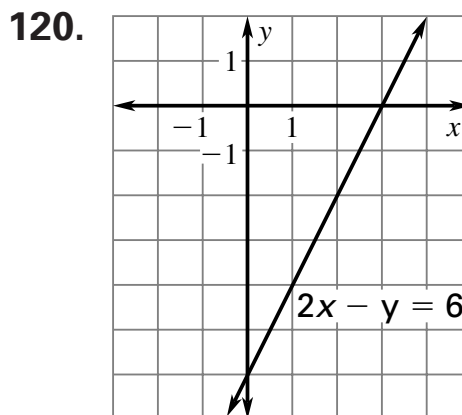
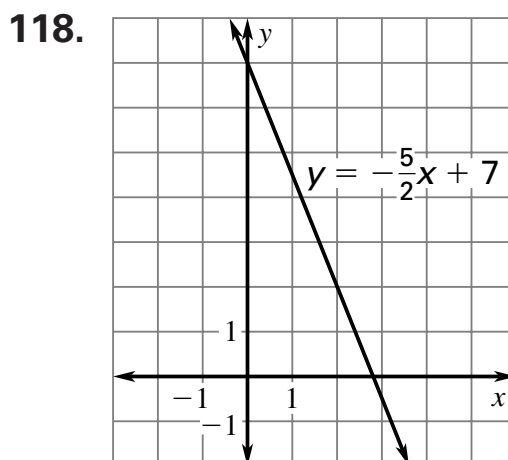
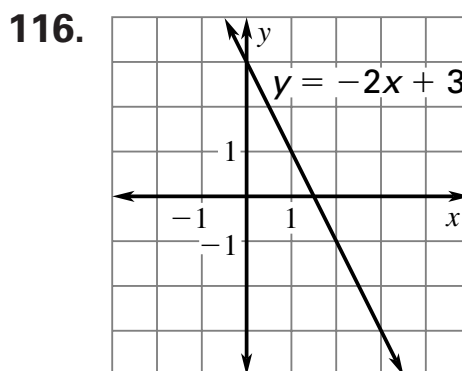
## 5.2 Mixed Review

106. 3; -3      108. 1.75; 2.75

110. no solution

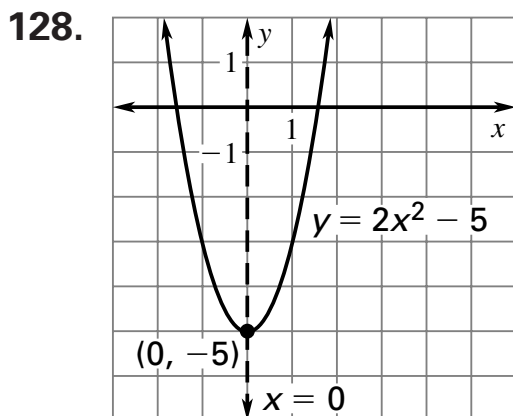
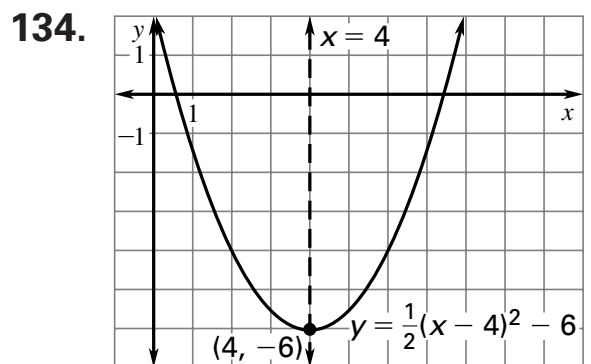
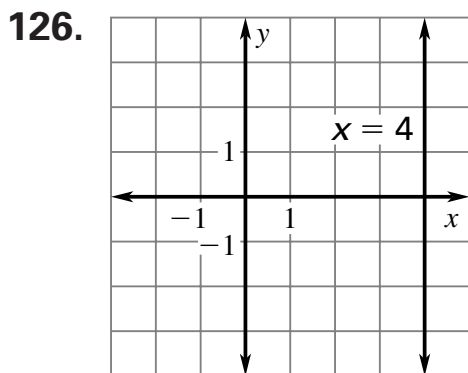
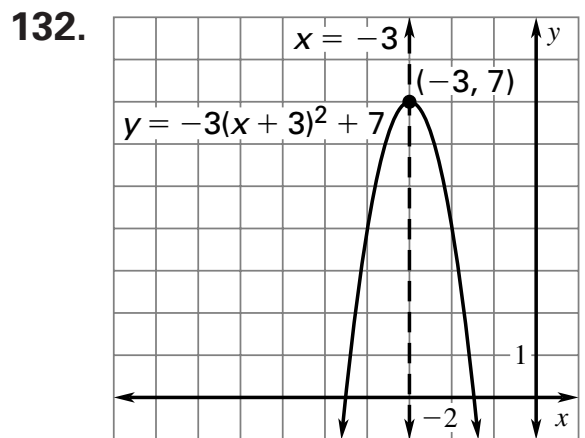
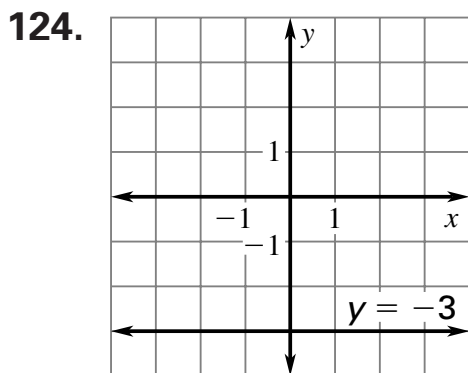
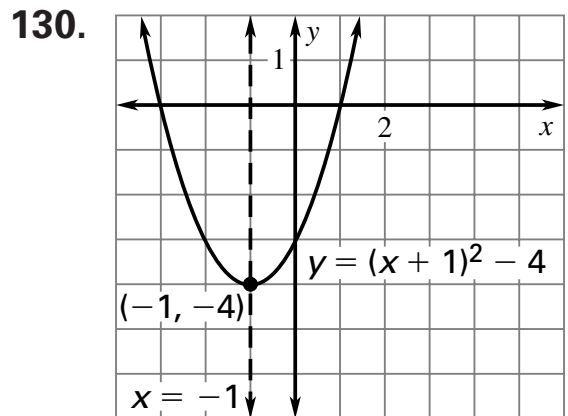
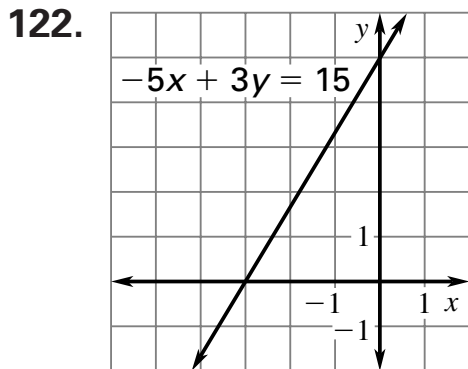
112.  $2 \leq x \leq 3$

114.  $x \leq -9$  or  $x \geq 3$



# ANSWERS FOR 5.2 (CONT.)

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