

**11-47.** Let  $s$  = the amount of money invested in stocks (dollars); Let  $b$  = the amount of money invested in bonds (dollars);  $0.03s + 0.05b = 430$  and  $s + b = 10,000$ ; Marius invested \$3500 in stocks and \$6500 in bonds.

**11-48.**  $6x + 12 = 4.75(x + 3)$ ;  $\frac{9}{5}$  pounds

**11-49. See below:**

a.  $f(x) = 5(1.5)^x$

b.  $f(x) = 0.5(0.4)^x$

**11-50. A**

**11-51.**  $y > 2x - 1$

**11-52. See below:**

a.  $x$ -intercepts  $(-2, 0)$  and  $(0, 0)$ ;  $y$ -intercept  $(0, 0)$

b.  $x$ -intercepts  $(-3, 0)$  and  $(5, 0)$ ;  $y$ -intercept  $(0, 3)$

c.  $x$ -intercepts  $(-1, 0)$  and  $(1, 0)$ ;  $y$ -intercept  $(0, -1)$

**11-53. See below:**

a.  $-2 < x < 2$

b.  $x \geq 2.5$

c.  $x = \frac{1}{4}$

d. no solution

e.  $x = -12$

f.  $-5 \leq x \leq 3$

**11-54.** Let  $t$  = number of toppings;  $1.19(3) + 0.49t = 4.55$ ;  $t = 2$

**11-55. See below:**

a.  $2a^2 - 5ab - 3b^2$

b.  $x^3 + x + 10$