

19. Price \$ 140

fall by 30%

$$\frac{140 \times 70}{100}$$

$$= \$ 98$$

a.

$$45c^2 - 20k^2$$

$$5(9c^2 - 4k^2)$$

$$5(3c-2k)(3c+2k)$$

20

$$\frac{2400 \times 125}{100}$$

3000 per in June

$$100 - 50 = 50$$

$$\frac{50}{100} \times 3000$$

$$= 1500 \text{ in July}$$

21 (a) $24u^2 + 15u$

$$3u(8u+5)$$

b. $m^2 + 12m + 36$

$$36m^2, 12m$$

$$m^2 + 6m + 6m + 36$$

$$m(m+6) + 6(m+6)$$

$$(m+6)(m+6)$$

(c) $32v^2 + 36vw - 44$

$$4(8v^2 + 9vw - 11)$$

$$4\{v(8v+9w) - 11\}$$

1. Slope

$$x (0, -1) (2, 0)$$

$$\frac{0 - (-1)}{2 - 0} = \frac{1}{2}$$

$$\text{slope} = \frac{1}{2}$$

$$y \text{ intercept} = -1$$

2. Slope

$$(0, 0.9) (1, 1)$$

$$\frac{1 - 0.9}{1 - 0} = \frac{0.1}{1}$$

$$\text{slope} = \frac{1}{10}$$

$$y \text{ intercept} = 0.9$$

3

$$y = 6x + 4$$

$$e (-6, -32)$$

4

$$Pr^2 + 2$$

$$(Pr)^2 - 2r + 5$$

$$(4x - 2)^2 - 2(-2) + 5$$

$$(-8)^2 + 4 + 5$$

$$64 + 4 + 5$$

$$= \underline{\underline{73}}$$

$$5 (a) (5b + 8) + (-9b + 6)$$

$$5b - 9b + 8 + 6$$

$$= 2 - 4b$$

$$5b (k^3)(k^7) = k^{10}$$

$$c. (-10q)(2f)(4f)$$

$$-80f^2q$$

$$d (3x^2)^3$$

$$= 3^3 x^{2 \cdot 3}$$

$$= 27x^6$$

6.

$$- \text{Integer} = 41$$

$$- \text{Binomial} = x - 5$$

- 9 function rule for quadratic.

$$\text{Function} = x^2 + 2x + 5$$

- two like terms.

~~and~~

$$3x + 4x \text{ and } (3+4)x$$

7 6.

$$a(a) -10 + (-13)$$

$$-10 - 13$$

$$= -23$$

$$(b) -3 - 35$$

$$= -38$$

$$c 2(-4)(-11)$$

$$88$$

d

$$\frac{-10}{-2.5} = \frac{100}{25}$$

$$e \frac{-30}{0}$$

$$= 0$$

$$f (8)(2.05)$$

$$8 \times 2.05$$

$$16.4$$

$$g \frac{-21.6}{3}$$

$$-7.2$$

$$h 3\sqrt{81}$$

$$3 \times \sqrt{81}$$

$$3 \times 9$$

$$= 27$$

i

$$3\sqrt{-125}$$

$$(-125)^{\frac{1}{3}}$$

$$= -25$$

$$9 \frac{120}{144} \text{ divide by } 12$$

$$\frac{10}{12} \text{ divide by } 2$$

$$\frac{5}{6}$$

$$\frac{5}{6}$$