5.6 Practice – Dividing a Polynomial by a Monomial

**1.** Divide.

**a)** 12*d* ÷ 4 **b)** –20*d* ÷ 5 **c)** 8*d* ÷ –4

**d)** 12*y*2 ÷ 4 **e)** –14*x*2 ÷ 2 **f)** –10*q* ÷ –5

**2.** Determine each quotient.

**a)** (16*v* + 16) ÷ 8 **b)** (25*k*2 – 15*k*) ÷ 5

**c)** (20 – 8*n*) ÷ (–4) **d)** (18*x*2 – 6*x* + 6) ÷ 6

**e)** (7 – 7*y* + 14*y*2) ÷ (–7)

**3.** Divide.

**a)** $\frac{12pr^{2} - 8pr - 16p}{-4p}$ **b)** $\frac{-12x^{2} - 9x + 12xy}{-3x}$

**4.** Divide.

**a)** (6*x* + 3) ÷ 3 **b)** (14*w* – 7) ÷ –7 **c)** (–15 – 10*q*) ÷ 5

**d)** (8*z*2 + 4*z*) ÷ 2*z* **e)** (12*c*2 – 6*c*) ÷ 3*c* **f)** (9*xy* – 6*x*) ÷ –3*x*

**5.** A rectangle has width $5x$ and its area is $30x^{2}-10x$.

 **a)** Find the length of the rectangle.

 **b)** What is the length of the rectangle if $x=3$ cm?

5.6 Practice – Answers

**1. a)** 3*d* **b)** –4*d* **c)** –2*d* **d)** 3*y*2 **e)** –7*x*2 **f)** 2*q*

**2. a)** 2*v* + 2 **b)** 5*k*2 – 3*k* **c)** –5 + 2*n* **d)** 3*x*2 – *x* + 1 **e)** –1 + *y* – 2*y*2

**3. a)** –3*r*2 + 2*r* + 4 **b)** 4*x* + 3 – 4*y*

**4. a)** 2*x* + 1 **b)** –2*w* + 1 **c)** –3 – 2*q* **d)** 4*z* + 2 **e)** 4*c* – 2 **f)** –3*y* + 2

**5. a)** 6*x* – 2 **b)** 16 cm