5.1 Practice – Modelling Polynomials

**1.** Identify which of the following expressions are polynomials.

**a)** 2*m*2 + 1 **b)**  **c)** –4*x* **d)** **e)** 0.25*y*2

**2.** Name the coefficients, variable, degree, and constant term of each polynomial.

**a)** –8*y* **b)** 12 **c)** –2*b*2 – *b* + 10 **d)** –4 – *b*

**3.** Identify each polynomial as a monomial, binomial, or trinomial.

**a)** 19*t* **b)** *g* – 4*g*2 + 5**c)** –1 + *xy* + *y*2**d)** 4 – 11*w*

**4.** Determine if the pairs of polynomials are equivalent (the same) or not.

1. –*h*2 – 3 + 4*h* and –3 + 4*h* – *h*2
2. 5*m* – 3 and –3 + 5*m*

**c)** –2 – *y*2 + 5*xy*  and *y*2 + 5*xy* – 2

**5.** Use algebra tiles to model each polynomial. Sketch the tiles.

**a)** –5 + *y*2 **b)** 2*x* – 1 **c)** –3*a*2 *–* 2*a* + 1 **d)** 3*z* **e)** *v*2 – 4*v*

**6.** Write a polynomial to match the following conditions.

**a)** 2 terms, degree 1, with a constant term of 4

**b)** 3 terms, degree 2, with a coefficient of –2 on the 2nd degree term

5.1 Practice – Answers

**1.** 2*m*2 + 1, –4*x*, 0.25*y*2

**2. a)** coefficient –8; variable *y*; degree 1; no constant term

**b)** no coefficient; no variable; degree 0; constant term 12

**c)** coefficients –2, –1; variable *b*; degree 2; constant term 10

**d)** coefficient –1; variable *b*; degree 1; constant term –4

**3. a)** monomial **b)** trinomial

**c)** trinomial **d)** binomial

**4.** **a)** yes **b)** yes **c)** no

5. a) b)

**c)** 

**d)**  **e)**

**6.** Answers will vary. Check your answer with the teacher. Examples:
**a)** 3*m* + 4 **b)** –2*y*2 + 5*y* – 1