A1.2.1:

(a) Power function, $a = 1/5$

(b) Algebraic function

(c) Polynomial, degree 9

(d) Rational function

(e) Trigonometric function

(f) Logarithmic function

A1.2.2:

(a) Rational function

(b) Algebraic function

(c) Exponential function, $a = 10$

(d) Power function (polynomial)

(e) Polynomial

(f) Trigonometric

A1.2.3:

(a) h

(b) f

(c) g

A1.2.4:

(a) G

(b) f

(c) F

(d) g

A1.2.5:

(a) $y = 2x + b$

(b) $y - 1 = m(x - 2)$

(c) $y - 1 = 2(x - 2)$

A1.2.6: They all cross the point $(-3, 1)$

A1.2.7: They all have slope -1

A1.2.8:

(a)

(b) The slope represents how many fewer spaces he can rentfor each dollar he charges. The y intercept of the graph is the maximum number of spaces he can rent. The x intercept represents the minimum amount of rent needed to result in no rentable spaces.

A1.2.9:

(a)

(b) The slope, 9/5, is the ratio between the magnitude of a unit of Fahrenheit and a unit of Celsius. The F-intercept is 0 degrees celsius in Fahrenheit.

A1.2.10:

(a) $d = 4t/5$, where t is minutes past 2:00

(b)

(c) The slope is Jason's speed.

A1.2.11:

(a)

$$T - 70 = \frac{80 - 70}{173 - 113}(N - 113)$$
$$T = \frac{1}{6}(N - 113) + 70$$

(b) The slope of the graph is the reciprocal of how much chirping increases when you increase temperature.

(c)

$$T = \frac{1}{6}(150 - 113) + 70 = \frac{37}{6} + 70 = 76 + \frac{1}{6}$$

A1.2.12:

(a)

$$C - 2200 = \frac{4800 - 2200}{300 - 100}(N - 100)$$
$$C = 13(N - 100) + 2200$$

(b) The slope of the graph is how much more the manufacturing cost increases by adding producing one more chair.

(c) The y-intercept represents the ineliminable overhead with producing chairs.

A1.2.13:

(a)

$$P = 15 + \frac{4.34}{10}d = 15 + 0.434d$$

(b)

$$100 = 15 + 0.434d$$
$$d = \frac{100 - 15}{0.434} \approx 195.85$$

A1.2.14:

(a)

$$C - 380 = \frac{460 - 380}{800 - 480}(d - 480)$$
$$C = \frac{d}{4} + 260$$

(b)

$$C = \frac{1500}{4} + 260 = 635$$

(c)

(d)

(e)

A1.2.15:

(a) Trig function

(b) Linear function

A1.2.16:

(a) Power function or a polynomial

(b) Power function

A1.2.17: Skip

A1.2.18: Skip

A1.2.19: Skip

A1.2.20: Skip

A1.2.21: Skip

A1.2.22: Skip