



Question 1

RUBRIC

Score	Description
6	<ul style="list-style-type: none">Assign 1 point for correct response to part a.Assign 1 point for correctly computing the savings for each village. (5 points) explanation or strategy.

SAMPLE RESPONSE

a. There are 10,000 people so $50,000/10,000 = \$5$

b. Village L = $2200(\$3.25 - \$2.00)$

= \$ 2750.00

Village J = $200(\$3.25 - \$2.00)$

= \$ 2500.00

Village R = $1900(\$3.25 - \$2.00)$

= \$2375.00

Village M = $2100(\$3.25 - \$2.00)$

= \$ 2625.00

c. Village P = $1800(\$3.25 - \$2.00)$

= \$ 2250.00

Question 2

RUBRIC

Score	Description
3	<p>Response demonstrates thorough understanding of linear equations with infinitely many solutions.</p> <ul style="list-style-type: none">Assign 1 point for correct equation (part a).Assign 1 point for correct solution.Assign 1 point for recognizing the number of solutions.

SAMPLE RESPONSE

$5p = 4p + 0.2 \times 5p$ Infinitely many solutions

$5p = 4p + 1p$

$5p = 5p$

Question 3**RUBRIC**

Score	Description
6	<ul style="list-style-type: none">• Parts a and b: Assign 1 point for each correct equation.• Part c: Assign up to 2 points for correct strategy and 1 point for correct solution.• Part d: Assign 1 point for correct answer.

SAMPLE RESPONSE

a. $\text{Utility} = (1.25 \times 2200)t + 8000$

b. $\text{Health} = (2.00 \times 2200)t + 5000$

c. $(1.25 \times 2200)t + 8000 = (2.00 \times 2200)t + 5000$

$$2750t + 8000 = 4400t + 5000$$

$$3000 = 1650t$$

$$t = 1.82 \text{ years}$$

d. The two lines should intersect at $x = 1.82$

Question 4**RUBRIC**

Score	Description
3	Assign up to 2 points for correct strategy and 1 point for correct solution.

SAMPLE RESPONSE

$$\text{Town R} = 1900 + 50y$$

$$= 1900 + 50(10)$$

$$= 1900 + 500$$

$$= 2400$$

Question 5**RUBRIC**

Score	Description
2	Assign 1 point for each part.

Question 6

RUBRIC

Score	Description
3	Assign 1 point for each part.

SAMPLE RESPONSE

a. $c = 600x + 500$

b. correct graph

c. \$3,500

Question 7

RUBRIC

Score	Description
3	Assign 1 point for each part

SAMPLE RESPONSE

a. $c = 550x + 900$

b. $c = 550(5) + 900 = \$3650$

c. The Red Star company is less expensive

Question 8

RUBRIC

Score	Description
3	Assign 2 points for correct equation and 1 point for correct solution.

SAMPLE RESPONSE

$$650x + 600 = 550x + 1100$$

$$650x + 550x = 1100 - 600$$

$$100x = 500$$

$$x = 5$$