Key

1.2/1.3 Stations

Go to all six stations in any order. Show your work and circle your answer.

Station #1

$$\frac{5}{-5} + \frac{2x+4}{3} = \frac{15}{-5}$$

$$3 \cdot \frac{2x+4}{3} = 10 \cdot 3$$

$$2x+4 = 30$$
$$-4 \quad -4$$
$$2x = 26$$

$$\boxed{x = 13}$$

Station #2

x = # of weeks

Joe: $20 + 10x$

Bria: $1000 - 15x$

$$20 + 10x = 1000 - 15x$$
$$25x = 980$$
$$x = 39.2$$

After 39.2 weeks they will have the same $

Station #3

$$3(x+4) + 7 = 3x + 17$$
$$3x + 12 + 7 = 3x + 17$$
$$-3x \qquad -3x$$
$$19 = 17$$

No solution!

Station #4

x = pounds of cashews

$14x$ + 32.50 = $10.25(5+x)$

$14x$: $ on cashews; 32.50: $ on peanuts; $10.25(5+x)$: $ on blend

$$14x + 32.50 = 51.25 + 10.25x$$
$$\frac{3.75x}{3.75} = \frac{18.75}{3.75}$$
$$x = 5$$

5 pounds

Station #5

$$\frac{1}{2}(6x+4) = 32 + 2x$$
$$3x + 2 = 32 + 2x$$

$$\boxed{x = 30}$$

Station #6

$$x + (x+2) + (x+4) = 177$$
$$3x + 6 = 177$$
$$-6 \quad -6$$
$$\frac{3x}{3} = \frac{171}{3}$$
$$x = 57$$

$\therefore$ 57, 59, 61