

#33-36 EOC

33

$$A = \frac{1}{2}h(b_1 + b_2)$$

$$A = \frac{1}{2}(4)((x-3) + (x+7))$$

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

$$= 2(2x+4)$$

$$= 4x+8$$

(B)

34

$$100 \leq \text{pens} \leq 240$$

$$70 \leq \text{penci} \leq 170$$

total < 300 pens + pencils

↓ lower profit

$$70 \text{ pencils} \times .75 = 52.50 \quad \uparrow$$

$$229 \text{ pens} \times 1.25 = 286.25$$

$$\text{higher profit } \boxed{\$338.75}$$

35

Almonds

$$\frac{\$22}{4} = \frac{\$5.50}{16}$$

Cashews

$$5.50 + 5.50(.6) = 8.80$$

(A)

Cashew

Almonds

$$8.8(.2) + 5.5(.8) = 6.16$$

(B)

$$8.8(.25) + 5.5(.75) = 6.33$$

(C)

$$8.8(.30) + 5.5(.70) = 6.49 \quad \leftarrow \text{closest to } \$6.50$$

(D)

$$8.8(.35) + 5.5(.65) = 6.66$$

(C)

36

$$f(x) = 10x + 5$$

$$g(x) = 7.5x + 25$$

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System of Equations or

plug in values (answers) for x.

(C)

8 weeks