b)

Number rolled	x	P(X=x)	X·P(X=x)
6	$12	0.3	3.6
4 or 5	$4	0.2	0.8
1, 2 or 3	$10	0.4	4
		sum	

c) ~~What~~ ~~E~~xpected Average Winnings per game

$$\frac{12 + 4 + 10}{3} = \$8.67$$

d) No

$$\frac{12 + 4 - 10}{3} = \frac{6}{3} = 2$$

e) No

$$S_x = \sqrt{\frac{\sum_{i=1}^{n} (x_i - \bar{x})^2}{n-1}}$$

$$= \sqrt{\sum (x_i - \bar{x})^2 \times p(x_i)}$$