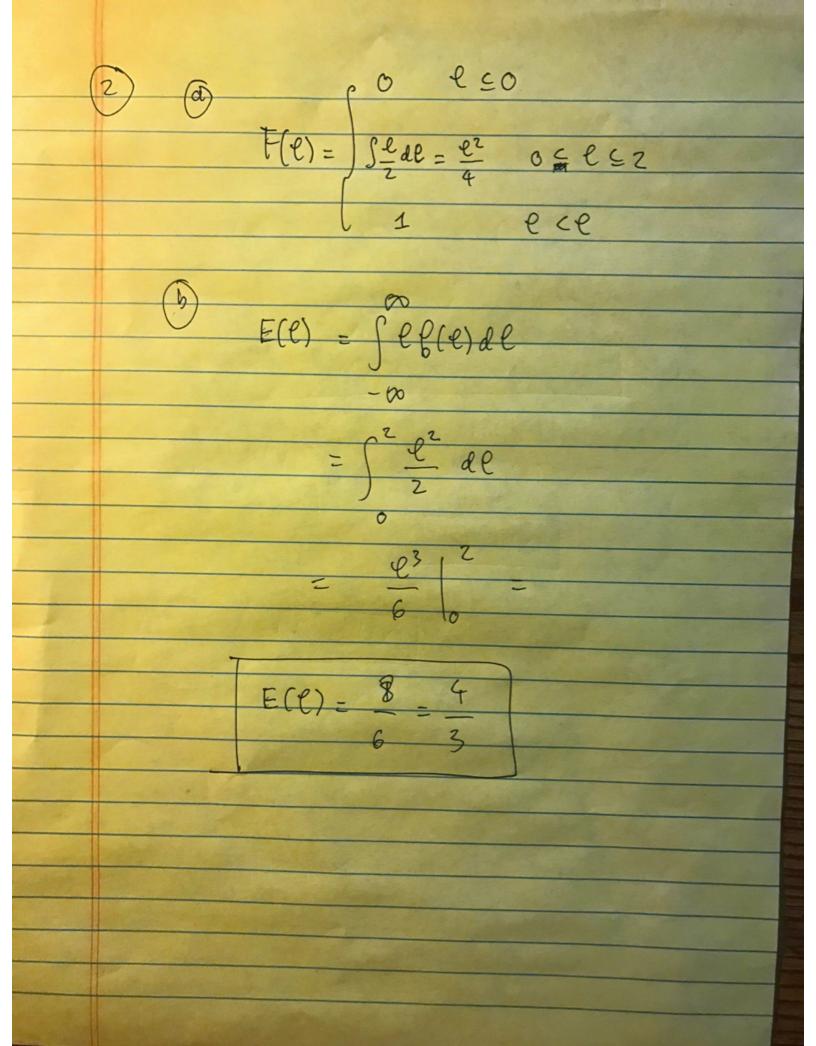
(i) a)
$$P = 0.5$$

 $Y = h(x)$: winning
 $E(y) = h(0) \cdot P(0) + h(1) P(1) + h(2) P(2) + h(3) P(3)$
 $6 = 0 \cdot \frac{1}{8} + 2 \cdot \frac{3}{8} + 4 \cdot \frac{3}{8} + \frac{h(3) \cdot 1}{8}$

$$F(y) = \begin{cases} \frac{1}{8} & y < 2 \\ \frac{1}{2} & 2 \leq y < 4 \\ \frac{7}{8} & 4 \leq y < 30 \end{cases}$$

$$= \begin{cases} \frac{1}{8} & y \geq 30 \end{cases}$$



$$\frac{3}{3} = g(t) = \frac{100(1-t)^{1/2}}{g(t) \cdot g(t) \cdot dt}$$

$$= \int_{-\infty}^{\infty} g(t) \cdot g(t) \cdot dt$$

$$= \int_{-\infty}^{\infty} 100(1-t)^{1/2}$$

3)6)

i.
$$x = x$$

{ 6 \(\) \