

$$\frac{M}{P_y}$$

$$M = P_x X + P_y Y$$

3.

$$(A) 10X + 10Y = 500$$

$$(B) \frac{-10}{10} = -1$$

$$(C) 11X + 10Y = 500$$

$$(D) 8X + 10Y = 500$$

$$(E) 10X + 10Y = 400$$

$$(F) \begin{cases} 10(X-10) + 10Y = 500, & X \geq 10 \\ 10Y = 500, & X < 10 \end{cases}$$

$$(G) \begin{cases} 10X + 10Y = 500, & X \leq 30 \\ 10 \times 30 + 10(X-30) + 10Y = 500, & X > 30 \end{cases}$$

$$(H) \begin{cases} 10X + 10Y = 500, & X \leq 30 \\ 10 \times 30 + 5(X-30) + 10Y = 500, & X > 30. \end{cases}$$

4.

$$(A) 60X + 100Y = 6400 - 200 = 6200$$

$$(B) \begin{cases} 80(X-5) + 100Y = 6400 - 200 = 6200, & X > 5 \\ 100Y = 6200, & X \leq 5 \end{cases}$$

$$(C) \begin{cases} 80X + 100Y = 6400, & X \leq 50 \\ 100Y = 2400, & 50 < X \leq 55 \\ 80X + 100Y = 6000, & 55 > X \end{cases}$$