(2) Plan A: $y=10 x+0$

Plan B: $y=8 x+8$

- Plan C: $y=40$

Comparison:

$$
\begin{aligned}
& 10 x=8 x+8 \\
& 2 x=8 \\
& x=4 \mathrm{hrs} \\
& y=10(4)=40
\end{aligned}
$$


(3) a)

$$
\begin{gathered}
4 x+2 y=6 \\
y=x-6
\end{gathered}
$$

Substitution:

$$
\begin{gathered}
\text { Substitution: } \\
\begin{array}{c}
4 x+2(x-6)=6 \\
4 x+2 x-12=6 \\
6 x=18 \\
x=3
\end{array} \quad y=(3)-6 \quad(3,-3) \\
y=-3
\end{gathered}
$$

Elimination:

$$
\begin{array}{cc}
4 x+2 y=6 & 4 x+2 y=6 \\
y=x-6 & -x+y=-6 \\
\frac{(4)}{4 x+2 y=6} 2 x-2 y=12 \\
6 x=18 \\
x=3
\end{array} \quad \begin{aligned}
& y=3-6 \\
& y=-3
\end{aligned}
$$

Comparison.

$$
\begin{aligned}
& 4 x+2 y=6 \rightarrow 2 y=-4 x+6 \rightarrow y=-2 x+3 \\
& y=x-6 \\
& x-6=-2 x+3 \\
& 3 x=9 \\
& x=3
\end{aligned} \quad \begin{aligned}
& y=3-6 \quad(3,-3) \\
& y=-3
\end{aligned}
$$

Graphing:

$$
\begin{aligned}
& \text { Graphing: } \\
& \begin{array}{l}
y=-2 x+3 \quad m=\frac{-2}{1} \quad b=3 \\
y=x-6 \quad m=\frac{1}{1} \quad b=-6
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \text { (4) a) }{ }^{2} \frac{x}{2}+\frac{5 y}{2}{ }^{2}=11 \quad x+5 y=22 \\
& 6 \frac{(x+5)}{6}+\frac{(y-3)}{28}=1 \\
& x+5+2 y-6=6 \\
& x+2 y=7 \\
& \frac{6 x+30}{6}+\frac{6 y-18}{3}=6 \\
& x+5+2 y-6=6 \\
& \Leftrightarrow \begin{array}{r}
x+5 y=2 \partial
\end{array} \quad \begin{array}{r}
x+2(5)=7 \\
x+10=7
\end{array} \quad(-3,5) \\
& \begin{array}{r|}
\hline x+2 y=7 \\
3 y=15 \\
y=5
\end{array} \quad \begin{array}{r}
x+10=7 \\
x=-3
\end{array}
\end{aligned}
$$

