

$(2v+3)(4v+3)=0$

$$\begin{array}{r} 2v+3=0 \\ -3 \quad -3 \\ \hline 2v = -3 \\ \frac{2v}{2} = \frac{-3}{2} \\ v = -\frac{3}{2} \end{array}$$

$4v+3=0$

$$\begin{array}{r} 4v+3=0 \\ -3 \quad -3 \\ \hline 4v = -3 \\ \frac{4v}{4} = \frac{-3}{4} \\ v = -\frac{3}{4} \end{array}$$

~~$p^2 - 10p + 22 = 2$~~

~~$p^2 - 10p + 24 = 0$~~

~~$\begin{array}{r} a \cdot c \\ 1 \cdot 24 \\ \hline -4 \quad -6 \\ \hline -10 \end{array}$~~

$(p^2 - 4p)(6p + 24) = 0$

$p(p-4) \cdot 6(p+4) = 0$

$(p-4)(p+4) = 0$

$\begin{array}{r} p-4=0 \\ +4 \quad +4 \\ \hline p = 4 \end{array}$

$\begin{array}{r} p+4=0 \\ -4 \quad -4 \\ \hline p = -4 \end{array}$

$5r^2 - 44r + 120 = -30 + 11r$

$5r^2 - 55r + 150 = 0$

~~$\begin{array}{r} a \cdot c \\ 5 \cdot 150 \\ \hline 750 \\ \hline -25 \quad -30 \\ \hline -55 \end{array}$~~

$(5r^2 - 25r)(30r + 10) = 0$

$5r(r-5) \cdot 31(r+5) = 0$

$(5r-30)(r-5) = 0$

$5r-30=0$

$\begin{array}{r} 5r-30=0 \\ +30 \quad +30 \\ \hline 5r = 30 \\ \frac{5r}{5} = \frac{30}{5} \\ r = 6 \end{array}$

$r-5=0$

$\begin{array}{r} r-5=0 \\ +5 \quad +5 \\ \hline r = 5 \end{array}$

$7x^2 + 2x = 0$

$(x)(7x+2) = 0$

$x = 0$

$7x+2=0$

$\begin{array}{r} 7x+2=0 \\ -2 \quad -2 \\ \hline 7x = -2 \\ \frac{7x}{7} = \frac{-2}{7} \\ x = -\frac{2}{7} \end{array}$

$x = 0, -\frac{2}{7}$

$\boxed{x = 0}$

$\boxed{x = -\frac{2}{7}}$

$\boxed{r = 6, 5}$

$\{5, 6\}$