

$$(2) \frac{1}{2m^2} = \frac{1}{m} - \frac{1}{2} \quad \text{LCD} = 2m^2$$

$$\begin{array}{r} | = 2m - m^2 \\ + m^2 \qquad \qquad + m^2 \end{array}$$

$$m^2 + 1 = 2m$$

$$- 2m \quad - 2m$$

$$m^2 - 2m + 1 = 0$$

-2	1
-2	-1

$$(m-1)(m-1) = 0$$

$$m-1=0$$

$$+1+1$$

$$m=1$$

$$(6) \quad \frac{3k}{k} - \frac{3k}{k} = \frac{3k}{k}$$

$$k^2 - 1 = 3$$

$$\quad \quad -3 \quad -3$$

$$k^2 - 4 = 0$$

$$(k-2)(k+2) = 0$$

$$k-2=0 \quad | \quad k+2=0$$

$$+2$$

$$-2$$

$k=2$	$k=-2$
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$$(9) \frac{1}{r+3} = \frac{r+4}{r-2} + \frac{6}{r-2}$$

$L(D) = (r+3)(r-2)$

$$\frac{\cancel{(r+3)}(r-2) \cdot 1}{r+3} = \frac{\cancel{(r+3)}\cancel{(r-2)}(r+4)}{\cancel{r-2}} + \frac{\cancel{(r+3)}\cancel{(r-2)}6}{\cancel{r-2}}$$

$$r-2 = (r+3)(r+4) + (r+3)6$$

$$r-2 = r^2 + 3r + 4r + 12 + 6r + 18$$

$$r-2 = r^2 + 13r + 30$$

$$\begin{array}{r} -r+2 \\ \hline \end{array}$$

$$0 = r^2 + 12r + 32$$

$$0 = (r+4)(r+8)$$

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

$$\begin{array}{l} r+8=0 \\ -8 \quad -8 \end{array}$$

$r = -4$	$r = -8$
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12	32
12	4 · 8