例1 解方程 $\frac{1}{x-2} = \frac{3}{x}$.

解方程
$$\frac{1-x}{x-2} = \frac{1}{2-x} - 2$$

例2 解方程: $\frac{480}{x} - \frac{600}{2x}$

1. 解方程:
$$(1) \frac{3}{x-1} = \frac{4}{x};$$

$$(2) \frac{x}{2x-3} + \frac{5}{3-2x} = 4.$$

1. 解方程

$$(1) \frac{6}{x+1} = \frac{x+5}{x(x+1)}; \qquad (2) \frac{3-x}{x-4} + \frac{1}{4-x} = 1; \qquad (3) \frac{y-2}{y-3} = 2 - \frac{1}{3-y}.$$