

$$\frac{(x-1)(2x-3)}{(x-1)(3x-3)} = \frac{1}{1} \checkmark$$

(2) - 1

$$\frac{x-3x-3x-1}{x} = \frac{-4x}{x} = -4 \checkmark$$

(2) - 2

$$\frac{x-2}{\sqrt{x-2}} \times \frac{1}{1} = \frac{1(x-2)}{x-2} = 1 \checkmark$$

(2) - 3

$$\frac{x-\sqrt{x}}{(x-1)(2x+3)} \times \frac{1}{1} \Rightarrow \frac{x^2-2x}{2x(x-1)(2x+3)} \Rightarrow \frac{x(x-2)}{2x(x-1)(2x+3)} = \frac{1}{14} \checkmark$$

(2) - 4

$$\frac{1-\sqrt{x}}{2-\sqrt{4-x}} \times \frac{1}{1} \times \frac{1}{1} \Rightarrow \frac{1-x}{x-1} \times \frac{1}{1} = -1 \checkmark$$

(2) - 5

$$\frac{\sqrt{3x+4}-4}{\sqrt{4x+4}-2} \times \frac{1}{1} \times \frac{1}{1} \Rightarrow \frac{3x-12}{4x+4-4} \times \frac{1}{1} = \frac{3(x-4)}{4(x-4)} \times \frac{1}{1} = \frac{3}{4} \checkmark$$

(2) - 6

$$\frac{\sqrt{2x+\sqrt{x}}-2}{\sqrt{x}-1} \times \frac{1}{1} \times \frac{1}{1} \Rightarrow \frac{2x+\sqrt{x}-4}{x-1} \times \frac{1}{1} = \frac{2x+\sqrt{x}-4}{x-1} \xrightarrow{\text{hop}} 2 + \frac{\sqrt{x}}{x-1}$$

(2) - 7

$$\frac{(1+\cos^2 \alpha)(1+\cos^2 \alpha - \cos \alpha)}{(1-\cos^2 \alpha)(1+\cos \alpha)} = \frac{1+\cos^2 \alpha + 1}{1-\cos \alpha} \xrightarrow{\text{باہر کی}} \frac{2+\cos^2 \alpha}{1-\cos \alpha} \checkmark$$

(2) - 8

$$\frac{\cos^2 x - \sin^2 x}{\cos x} = \frac{1}{\cos x} \xrightarrow{\text{باہر کی}} \frac{1}{\sqrt{2}} \checkmark$$

(2) - 9

$$\frac{(\tan x - 1)(\tan x + 1)}{\cos^2 x - \sin^2 x} \Rightarrow \frac{\tan^2 x - 1}{\cos^2 x - \sin^2 x} = \frac{1}{\cos^2 x} = \frac{1}{1} = 1 \checkmark$$

(2) - 10

$$\text{Hop} \rightarrow \lim_{n \rightarrow \infty} \frac{\frac{1}{\sqrt{2n+4}}}{\frac{1}{\sqrt{(2n+4)^2}}} = \frac{1}{1} = \frac{1}{1} \checkmark$$

سوال 4