

$$(17) \left(\frac{2x+1}{1} + \frac{9-x}{x} = \frac{3x}{1} \right) \times x$$

$$x \frac{2x+1}{1} + \cancel{x} \frac{9-x}{x} = x \frac{3x}{1}$$

$$x(2x+1) + 9-x = 3x$$

$$2x + x + 9 - x = 3x$$

$$x + 9 = 3x - 2x + x$$

$$\frac{1x}{1} = \frac{2x}{1}$$

$$\boxed{x = 9}$$

$$\frac{a}{b} = \frac{c}{d} \Rightarrow a \times d = b \times c$$

$$(18) \frac{7x-21}{3x-7} = 0$$

$$7x - 21 = 0 \Rightarrow \frac{7x}{7} = \frac{21}{7} \Rightarrow \boxed{x = 3}$$

نتیجه: اگر حاصل ضرب 2 یا چند عبارت، برابر با صفر باشد، حداقل یکی از آن عبارات برابر با صفر بوده است.

$$(19) x(x+1)(x+2) = 0$$

$$\left\{ \begin{array}{l} \boxed{x = 0} \\ \end{array} \right.$$

$$x+1=0 \Rightarrow \boxed{x = -1}$$

$$x+2=0 \Rightarrow \boxed{x = -2}$$

$$(20) (3x-4)(4+24y)(2z-4) = 0$$

$$\frac{4x}{4} = \frac{16}{4} \Rightarrow \boxed{x = 4}$$

$$2x+1 + \frac{9-x}{x} = 3x$$

$$1 + \frac{9-x}{x} = 3x - 2x$$

$$\frac{1+x}{1 \times x} + \frac{9-x}{x} = x$$

$$\frac{x+9-x}{x} = x$$

$$\frac{1x-x}{x} = x$$

$$1x-x = 3x$$

$$1x = 3x + x$$

$$x = 3x \Rightarrow 1x = 3x$$

$$A=0 \Leftrightarrow \frac{A}{B} = 0 \quad \text{نتیجه!}$$

$$7x - 9 = 0 \Rightarrow \frac{7x}{7} = \frac{9}{7} \Rightarrow \boxed{x = \frac{9}{7}}$$

$$\frac{\xi}{7} = \frac{\xi}{7} \quad \frac{1}{7}$$

$$x + 2xy = 0 \Rightarrow \frac{x}{x} + \frac{2xy}{x} = \frac{-\xi}{2\xi} \Rightarrow \boxed{y = -\frac{1}{2}}$$

$$9z - 9 = 0 \Rightarrow \frac{9z}{9} = \frac{9}{9} \Rightarrow \boxed{z = 1}$$

$$\textcircled{20} \quad (7x + 3z)(-1x + 20)(9x - 9) = 0$$

$$7x + 3z = 0 \Rightarrow \frac{7x}{7} = \frac{-3z}{7} \Rightarrow \boxed{x = -\frac{3z}{7}}$$

$$-1x + 20 = 0 \Rightarrow \frac{-1x}{-1} = \frac{-20}{-1} \Rightarrow x = \frac{20}{1} = \frac{20}{1}$$

$$9x - 9 = 0 \Rightarrow \frac{9x}{9} = \frac{9}{9} \Rightarrow \boxed{x = \frac{9}{9}}$$





