

$$\textcircled{1} \quad 2x + 3y - 13 = 0$$

$$5y - 4x = 7$$

$$2x + 3y = 13$$

$$-4x + 5y = 7$$

$$-4 \cdot \frac{(13-3y)}{2} + 5y = 7$$

$$-26 + 6y + 5y = 7$$

$$11y = 7 + 26$$

$$11y = 33 / : 11$$

$$y = 3$$

$$\begin{aligned} 2x + 3y &= 13 \\ 2x &= 13 - 3y \quad / : 2 \\ x &= \frac{13 - 3y}{2} \end{aligned}$$

$$\begin{aligned} 2x + 3y &= 13 \\ 2x + 3 \cdot 3 &= 13 \\ 2x &= 13 - 9 \\ 2x &= 4 / : 2 \\ x &= 2 \end{aligned}$$

Preizkus:

$$2x + 3y - 13 = 0$$

$$2 \cdot 2 + 3 \cdot 3 - 13 = 0$$

$$13 - 13 = 0$$

$$0 = 0 \quad \checkmark$$

v obe

18/20

$$\textcircled{2} \quad 2ax(a+1) = 3a(1+x)$$

$$2a^2x + 2ax = 3a + 3ax$$

$$2a^2x + 2ax - 3ax = 3a$$

~~2a^2x + 2ax - 3ax = 3a~~
~~a(2a+2) = 3a~~
~~ax = 3a~~

Možna

$$2a(ax+1) = 3a$$

$$2a^2x - ax = 3a$$

$$ax(2a-1) = 3a$$

$$x \cdot a \cdot (2a-1) = 3a$$

$$\textcircled{1} \quad \text{če je } a(2a-1) \neq 0$$

$$x \cdot a \cdot (2a-1) = 3a \quad / : a \cdot (2a-1)$$

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

$$x = \frac{3}{2a-1}$$

$$\textcircled{2} \quad \text{če je } 2a-1 = 0$$

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

$$x \cdot \frac{1}{2} \cdot 0 = 3 \cdot \frac{1}{2}$$

$$0 = \frac{3}{2}$$

Nesmiselna enačba, ki nima rešitve.

$$\textcircled{3} \quad \text{če je } a = 0$$

$$x \cdot 0 \cdot (0-1) = 3 \cdot 0$$

$$0 = 0$$

Identiteta, ima neskončno rešitev.

	DANES	ČEZ 2 LETI
3) MATI	$9x - 6 = 36 - 6 = 30$	$(9x - 6) + 2$
OČE	$9x - 34 = 36$	$9x + 2$
SIN	$2x = 24 = 8$	$2x + 2$

$$(9x - 6) + 2 + 9x + 2 = 7(2x + 2)$$

$$9x - 6 + 2 + 9x + 2 = 14x + 14$$

$$18x - 2 - 14x = 14$$

$$4x = 14 + 2$$

$$4x = 16 / : 4$$

$$x = 4$$

Odgovor: Danes je mati stara 30 let, oče 36, sin pa 8.

$$\begin{aligned}
 & (\sqrt{2} - \sqrt{3}) \cdot \sqrt{5} + (\sqrt{3} - \sqrt{2})^2 - (\sqrt{3} + \sqrt{2})(\sqrt{5} - \sqrt{3}) + \frac{2\sqrt{2}}{\sqrt{3} - \sqrt{2}} = \\
 & = \sqrt{10} - \sqrt{15} + 3 - 2\sqrt{6} + 2 - (\sqrt{15} - 4\sqrt{9} + \sqrt{10} - 4\sqrt{6}) + \frac{(2\sqrt{2})(\sqrt{3} + \sqrt{2})}{(\sqrt{3} - \sqrt{2})(\sqrt{3} + \sqrt{2})} = \\
 & = \cancel{\sqrt{10}} - \sqrt{15} + 3 - 2\sqrt{6} + 2 - \sqrt{15} + 4\sqrt{9} - \cancel{\sqrt{10}} + 4\sqrt{6} + \frac{2\sqrt{6} + 2 \cdot 2}{3 - 2} = \\
 & = -2\sqrt{15} + 5 + 2\sqrt{6} + 4 \cdot 3 + 2\sqrt{6} + 4 = \\
 & = -2\sqrt{15} + 4\sqrt{6} + 21
 \end{aligned}$$

5) 1. število: $\frac{x}{x-5} = \frac{7}{7-5} = \frac{7}{2}$ $\frac{x \cdot 2}{(x-5) \cdot 21} = \frac{1}{3}$

Odgovor: Prvotni ulomek je

$$\frac{7}{2}$$

$$\frac{2x}{21x - 105} = \frac{1}{3} \quad / \cdot (21x - 105) \cdot 3$$

$$3 \cdot 2x = 21x - 105$$

$$6x - 21x = -105$$

$$-15x = -105 / : (-15)$$

$$x = 7$$

Super! Prvotni