

Četrtek, 16. 4. 2020 – Učiteljica Maja Kamenščak

UTRJEVANJE – IZRAZI - REŠITVE

Preglej rešitve in če so pravilne naredi z rdečo kljukico ☺, drugače popravi in naredi popravo. Členi veččlenika imajo lahko drugačen vrstni red. Pazi samo na predznake. **Rešeno in popravljeno preverjanje mi pošlji na elektronski naslov: maja.kamenscak@gmail.com**

1) Poenostavi izraze.

$$\begin{aligned} \text{a) } 4xy - 9x + 7x - xy &= \\ &= 3xy - 2x \end{aligned}$$

$$\begin{aligned} \text{b) } 9y^2 + 12 - 17y^2 &= \\ &= -8y^2 + 12 \end{aligned}$$

$$\begin{aligned} \text{c) } 3xy - 5y + 12y &= \\ &= 3xy + 7y \end{aligned}$$

$$\begin{aligned} \text{č) } 9a - (a^2 - a + 8) + 3a &= \\ &= 9a - a^2 + a - 8 + 3a = \\ &= -a^2 + 13a - 8 \end{aligned}$$

$$\begin{aligned} \text{d) } -ab + (a - 3ab + b) &= \\ &= -ab + a - 3ab + b = \\ &= -4ab + a + b \end{aligned}$$

$$\begin{aligned} \text{e) } 8a - (6a^2 - 5a + 7) &= \\ &= 8a - 6a^2 + 5a - 7 = \\ &= -6a^2 + 13a - 7 \end{aligned}$$

2) Zmnoži enočlenike in uredi rezultate.

$$\begin{aligned} \text{a) } 2x \cdot 7y &= \\ &= 14xy \end{aligned}$$

$$\begin{aligned} \text{b) } x^2 \cdot 5y^3 &= \\ &= 5x^2y^3 \end{aligned}$$

$$\begin{aligned} \text{c) } 3ab \cdot 5a &= \\ &= 15a^2b \end{aligned}$$

$$\begin{aligned} \text{č) } -a^3 \cdot (-4b^2) &= \\ &= +4a^3b^2 \end{aligned}$$

$$\begin{aligned} \text{d) } -6u \cdot 1,3v &= \\ &= -7,8uv \end{aligned}$$

$$\begin{aligned} \text{e) } 0,5c \cdot (-9c^4) &= \\ &= -4,5c^5 \end{aligned}$$

3) Zmnoži.

$$\begin{aligned} \text{a) } (x - 5) \cdot 7 &= \\ &= 7x - 35 \end{aligned}$$

$$\begin{aligned} \text{b) } 2a(a + 3) &= \\ &= 2a^2 + 6a \end{aligned}$$

$$\begin{aligned} \text{c) } 9x(x - y + 1) &= \\ &= 9x^2 - 9xy + 9x \end{aligned}$$

$$\begin{aligned} \text{č) } (a^3 - a^2 + b) \cdot 2ab &= \\ &= 2a^4b - 2a^3b + 2ab^2 \end{aligned}$$

$$\begin{aligned} \text{d) } (a - b) \cdot (a + 3) &= \\ &= a^2 + 3a - ab - 3b = \end{aligned}$$

$$\begin{aligned} \text{e) } (x + 1) \cdot (x - 4) &= \\ &= x^2 - 4x + x - 4 = \\ &= x^2 - 3x - 4 \end{aligned}$$

4) Izpostavi skupni faktor.

$$\begin{aligned} \text{a) } 8ab - 6b &= \\ &= 2 \cdot 4ab - 2 \cdot 3b = \\ &= 2b (4a - 3) \end{aligned}$$

$$\begin{aligned} \text{b) } xyz + x^2 yz^3 - x^3 yz^2 &= \\ &= xyz + xxyzzz - xxxyz = \\ &= xyz (1 + xz^2 - x^2z) \end{aligned}$$

$$\begin{aligned} \text{c) } 9x^3 - 3 &= \\ &= 3 (3x^3 - 1) \end{aligned}$$

$$\begin{aligned} \text{č) } 5c - 10d + 15 &= \\ &= 5 (c - 2d + 3) \end{aligned}$$

5) Poenostavi izraze.

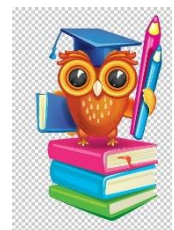
$$\begin{aligned} \text{a) } x + 3(x - 5) &= \\ &= x + 3x - 15 = \\ &= 4x - 15 \end{aligned}$$

$$\begin{aligned} \text{b) } 2b - 4(1 - 5a + b) &= \\ &= 2b - 4 + 20a - 4b = \\ &= 20a - 2b - 4 \end{aligned}$$

$$\begin{aligned} \text{c) } (y - 4)(y + 1) + 2(y + 5) &= \\ &= y^2 + y - 4y - 4 + 2y + 10 = \\ &= y^2 - y + 6 \end{aligned}$$

6) Najprej izraz poenostavi, nato izračunaj vrednost, če je $x = -2$ in $y = \frac{1}{2}$.

$$\begin{aligned} 4(x - 3y) + 4(y - 5x) &= \\ &= 4x - 12y + 4y - 20x = \\ &= -16x - 8y = \\ &= -16 \cdot (-2) - 8 \cdot \frac{1}{2} = \\ &= +32 - \frac{8 \cdot 1}{2} = \\ &= 32 - 4 = 28 \end{aligned}$$



Saj že vse obvladaš 😊