VÝRAZY A ROVNICE

1. Zjednodušte, aby výraz neobsahoval závorky

1.1. $(2 - 4x) \cdot (-2x) =$

1.2. $\left(-\frac{x}{2} - \frac{1}{3}\right) \cdot \left(\frac{x}{2}\right) =$

1.3. $(2a - 1) \cdot (3a - 4) =$

1.4. $\left(\frac{a}{2} + 1\right) \cdot \left(\frac{a}{3} - 1\right) =$

1.5. $\frac{1}{3} \cdot (a + 1) \cdot (1 - 2a) + a \cdot (a - 2) =$

1.6. $(a + 1) \cdot (3 - 2b) + 2ab =$

1.7. $n \cdot \left(\frac{1}{2}m + n\right) + 2n \cdot \left(-\frac{1}{4}m + \frac{1}{2}n^2\right) =$

1.8. $(1 + 3b) \cdot (1 + 3b) - 3b \cdot (2 + 3b) =$

1.9. $\left(a + \frac{3}{2}b\right) \cdot \left(a + \frac{3}{2}b\right) - 3b \cdot \left(a + \frac{3}{4}b\right) =$

1.10. $-2a \cdot a - 3b \cdot 2b + 2 \cdot (a + 1) \cdot a =$

1.11. $(4x + 1) \cdot (4x - 1) + 4x \cdot \left(\frac{1}{4} - 4x\right) =$

1.12. $(x + 2)^2 - (x - 2)^2 =$

1.13. $3 \cdot \left(\frac{x}{2} + 3\right)^2 - 2 \cdot \left(x - \frac{1}{2}\right)^2 =$

1.14. $(2x - 5) \cdot (2x + 5) - (2x + 5)^2$

1.15. $\left(\frac{x}{3} + \frac{4}{3}\right)^2 =$

1.16. $5a \cdot (0{,}4b + 0{,}25a)^2 =$

1.17. $\left(3x - \frac{1}{3}\right)^2 - 9x \cdot \left(x - \frac{2}{9}\right) =$

1.18. $\frac{(2x+1)}{2} \cdot 4x - 2^2 =$

1.19. $(-2a)^2 - (4a)^2 \cdot \frac{1}{2} =$

1.20. $(0{,}5 - 0{,}5a)^2 + \frac{3a}{2} : \left(\frac{7}{8} - \frac{1}{2}\right) =$

2. Rovnice

2.1. $5x - \frac{1}{2} = 7{,}5 - 3x$

2.2. $x - \frac{2}{3} = \frac{5x}{7} + \frac{1}{2}$

2.3. $\frac{5x}{9} - \frac{4}{15} = \frac{2x-1}{3}$

2.4. $\frac{x+1}{9} - \frac{x}{3} = \frac{2-3x}{6} - 3$

2.5. $\frac{3x-1}{2} = x - \frac{2-3x}{3}$

2.6. $\frac{2y+3}{4} = -\frac{1}{3}\left(\frac{3}{4} - y\right)$

2.7. $\frac{3x}{4} + \frac{2}{5} = \frac{7}{5}$

2.8. $\frac{x+4}{3} + \frac{x-1}{2} = \frac{x+4}{4}$

2.9. $2(2x + 3) = 8(1 - x) - 5(x - 2)$

2.10. $\quad \frac{5x-4}{2} = \frac{16x+1}{7}$

2.11. $\quad 0{,}3x - \frac{1}{4} = 0{,}7x + 0{,}75$

2.12. $\quad \frac{3-2y}{3} = \frac{2y-1}{4} + \frac{2y+4}{6}$

2.13. $\quad \left(3x - \frac{3}{2}\right)(x - 1) = (3x - 1)\left(x - \frac{5}{2}\right)$

2.14. $\quad (x + 4)(x + 1) - 4\left(x + \frac{5}{2}\right) = (x - 4)^2$

2.15. $\quad 3x - 5 + 2(1 - x) = -(x + 2)$

2.16. $\quad -\frac{2x+4}{3} + \frac{\frac{x}{2}+3}{6} = \frac{1}{12}$

2.17. $\quad \frac{x}{4} + \frac{5}{12} = \frac{6}{5}$

2.18. $\quad \frac{4x-1}{3} - 2 = \frac{x}{2} + \frac{4+2x}{4}$