Řešení - 24.5.22o

Příklady k procvičování:

Příklad č. 1:

Zjednodušte a uveďte podmínky:

a) $\frac{7a}{3b}.6b^2 =$ $\frac{14}{\cancel{42}ab^{\cancel{2}}}{\cancel{3b}} = 14ab$ $b \neq 0$

b) $\frac{3m+2}{3m-2}.(6m-4) =$ $\frac{(3m+2)\cdot 2(\cancel{3m-2})}{\cancel{3m-2}} = 2(3m+2)$ $m \neq \frac{2}{3}$

c) $(a^2-4a).\frac{a}{a^2-16} =$ $\frac{a(a-4)\cdot a}{(a-4)(a+4)} = \frac{a^2}{a+4}$ $a \neq -4$, $a \neq 4$

d) $\frac{6r^2}{6r^2-15rs}.(2r-5s) =$ $\frac{6r^{\cancel{2}}(2r-5s)}{3r(2r-5s)} = 2r$ $r \neq 0$, $r \neq \frac{5}{2}s$

e) $(3x^2-3xy).\frac{2x-2y}{x^2-2xy+y^2} =$ $x^2-2xy+y^2 = (x-y)(x-y)$ $\frac{3x(x-y)\cdot 2(x-y)}{(x-y)(x-y)} = 6x$ $x \neq y$

f) $\frac{2p+5}{6p-7}.(21-18p) =$ $-(7-6p)$ $\frac{(2p+5)\cdot 3\cdot(7-6p)}{-(7-6p)} = -3(2p+5)$ $p \neq \frac{7}{6}$

g) $\frac{2p+5q}{4p^2-20pq+25q^2}.(5q-2p) =$ $4p^2-20pq+25q^2 = (2p-5q)^2$ $\frac{(2p+5q)\cdot(-)\cdot(2p-5q)}{(2p-5q)\cdot(2p-5q)} = \frac{-(2p+5q)}{2p-5q}$ $p \neq \frac{5}{2}q$

h) $(2x^3+2x^2y).\frac{6x+3}{3x^2+3xy)} =$ $\frac{2x^{\cancel{2}}(x+y)\cdot 3\cdot(2x+1)}{\cancel{3x}(x+y)} = \frac{2x(2x+1)}{1} =$ $= 2x(2x+1)$, $x \neq 0$, $x \neq -y$