

PL – matematika, 9. ročník
Násobenie a delenie mocnín s rovnakým základom

1. Doplňte:

$$a^2 \cdot \underline{\quad} = a^5$$

$$x^7 \cdot \underline{\quad} = x^{14}$$

$$\underline{\quad} \cdot y^2 = y^9$$

$$\underline{\quad} \cdot x^7 = x^8$$

$$k^3 \cdot \underline{\quad} = 5k^6$$

$$\underline{\quad} \cdot a^7 = 4a^9$$

$$a^{15} : \underline{\quad} = a^{11}$$

$$a^7 : \underline{\quad} = a^3$$

$$\underline{\quad} : x^5 = x^3$$

$$\underline{\quad} : y^8 = y^2$$

$$\underline{\quad} a^7 \cdot 6 \underline{\quad} = 18a^{11}$$

$$4x^4 \cdot \underline{\quad} x^7 = 24x^{\underline{\quad}}$$

$$\underline{\quad} x^4 \cdot 3 \underline{\quad} = 12x^7$$

$$\underline{\quad} x^2 \cdot 5x^3 = 10x^{\underline{\quad}}$$

$$30a^4 : \underline{\quad} a^{\underline{\quad}} = 6a^2$$

$$12x^{13} : 4x^{\underline{\quad}} = 3x^6$$

$$\underline{\quad} a^6 : 2a^{\underline{\quad}} = 7a^4$$

$$6y^{12} : \underline{\quad} y^5 = 3y^{\underline{\quad}}$$

2. Vynásobte:

a) $4a^2b \cdot 3ab^5 =$

b) $3x^2y \cdot 5xy^4 =$

$$c) x^3 \cdot y^7 \cdot x^5 \cdot (-15y)^2 =$$

$$d) a^4 \cdot b^3 \cdot a^5 \cdot (-17a)^2 =$$

$$e) (-2x)^4 \cdot y^7 \cdot x^6 \cdot y =$$

$$f) (-3x)^3 \cdot y^6 \cdot x \cdot y^3 =$$

3. Vydeľte:

$$a) 6,3x^8y^{14} : 0,3x^4y^{10} =$$

$$b) 9,6a^7b^{20} : 0,4a^3b^{18} =$$

$$c) 15a^{14}b^{18} : 5a^2b^6 =$$

$$d) 25a^{16}b^{20} : (-5a^8b^4) =$$

$$e) 66x^3y^9 : 11x^4y^8 =$$

4. Upravte nasledovné výrazy:

$$a. 3b^4 \cdot 4b^3 =$$

$$b. 4ab^3c \cdot 3a^3c^5 =$$

$$c. h^3j^3k^2 \cdot 4j^4 =$$

$$d. 38a^6b^8 : 2a^2b^4 =$$

$$e. 12a^8b^{14}c^2 : 6a^2b^7c^2 =$$