M2 - Mocniny

Vzorce

1. $a^r * a^s = a^{r+s}$
2. $a^r : a^s = a^{r-s}$
3. $(a^r)^s = a^{s*r}$
4. $(a * b)^r = a^r * b^r$
5. $\left(\frac{a}{b}\right)^r = \left(\frac{a^r}{b^r}\right)$

$\cos 2x = \cos^2 x - \sin^2 x$

$\sin 2x = 2 \cos x \sin x$

$a^{-n} = \frac{1}{a^n}$

$a^0 = 1$

$a^{\frac{m}{n}} = \sqrt[n]{a^m}$

$(a + b) * (a - b) = a^2 - b^2$

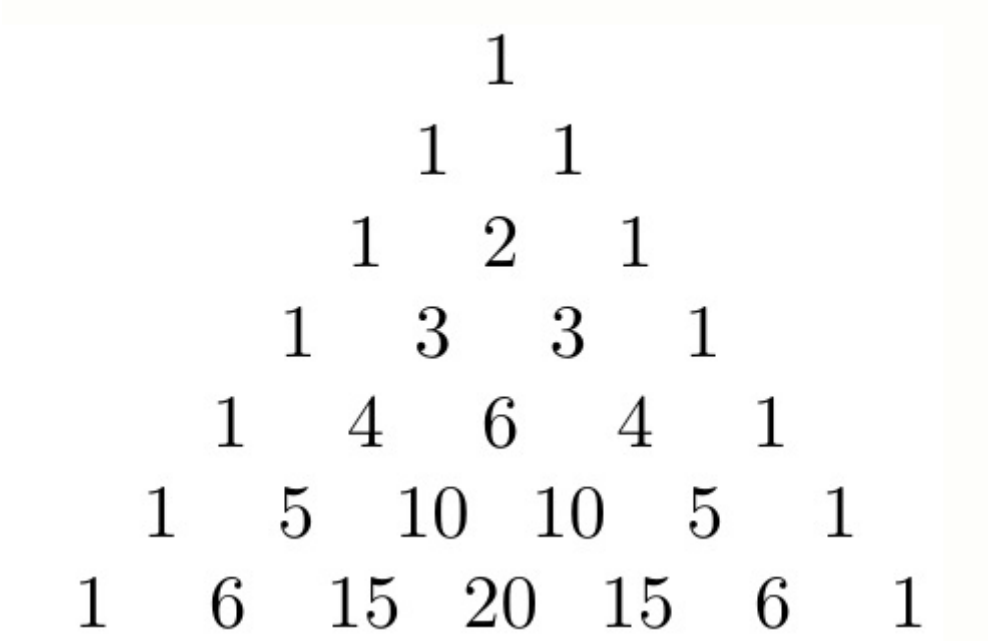
$(a + b)^2 = a^2 + 2ab + b^2$

$(a - b)^2 = a^2 - 2ab + b^2$

$(a + b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$

$(a + b)^4 = a^4 + 4a^3b + 6a^2b^2 + 4ab^3 + b^4$

Pascalův trojúhelník



$$\binom{n}{k} = \frac{n!}{k!(n-k)!}$$

$$\binom{7}{4} = \frac{7*6*5*4}{4*3*2*1} = \frac{7*6*5}{3*2*1} = \binom{7}{3}$$