- (1) Berechne:
 - a) $\begin{pmatrix} 0 \\ 0 \end{pmatrix}$
- b) $\begin{pmatrix} 1 \\ 0 \end{pmatrix}$
- c) $\begin{pmatrix} 1 \\ 1 \end{pmatrix}$
- d) $\binom{2}{0}$

- e) $\binom{4}{2}$
- f) $\binom{5}{2}$
- g) $\begin{pmatrix} 6 \\ 1 \end{pmatrix}$
- $h = \begin{pmatrix} 6 \\ 6 \end{pmatrix}$

(2) Ergänze:

$$\binom{0}{0} =$$

$$\binom{1}{0}$$
=

$$\binom{1}{1}$$
=

$$\binom{2}{0}$$
=

$$\binom{2}{1}$$
=

$$\binom{2}{2}$$
=

$$\binom{3}{0} =$$

$$\binom{3}{1}$$
=

$$\binom{3}{2} =$$

$$\binom{3}{3}$$
=

- (3) Berechne die Elemente der 20. Zeile des Pascal'schen Dreiecks.
- (4) Zeige, dass gilt:
 - a) $\binom{8}{2} = \binom{8}{6}$
- b) $\binom{n}{k} = \binom{n}{n-k}$