

(1) Berechne:

a) $\binom{0}{0}$

b) $\binom{1}{0}$

c) $\binom{1}{1}$

d) $\binom{2}{0}$

e) $\binom{4}{2}$

f) $\binom{5}{2}$

g) $\binom{6}{1}$

h) $\binom{6}{6}$

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