Solutions for Attendance Quiz for Lecture 3

NAME: (print!) Dr. Z.

1. How many edges are there in each of the following graphs

(i) K_{13} (ii) $K_{11,13}$ (iii) Q_{10} (iv) W_{1001}

Sol to 1:

(i) $\binom{13}{2} = \frac{13 \cdot 12}{2} = 78$

(ii) $11 \cdot 13 = 143$

(iii) $\frac{10 \cdot 2^{10}}{2} = 5120$

(iv) $1000 + 1000 = 2000$

2. Draw the **complete tripratite graph** $K_{2,2,3}$

you do it.

3. Find the number of edges of $K_{a,b,c}$, where a, b, c are positive integers.

$\frac{a(b+c)+b(a+c)+c(a+b)}{2} = ab + ac + bc.$