

## Real Quiz 5

NAME: (print!) \_\_\_\_\_

E-MAIL ADDRESS: (print!) \_\_\_\_\_

1. (a) (2 point): Draw all the spanning trees of the cycle graph  $C_4$ , whose edges are  $\{\{1, 2\}, \{2, 3\}, \{3, 4\}, \{1, 4\}\}$ .

(b) (2 point): How many spanning trees does the cycle graph  $C_n$  have? EXPLAIN!

2. (a) (4 points) Using the known fact that a tree has at least one endpoint, prove that it must have at least **two** endpoints.