

MATH 233

Fall 2018

Quiz #4 A

Duration: 50 minutes.

Remark: Show your thinking/work. Do not just write a number or a formula as a result.

1. A **graph** $G=(V,E)$ is a set of vertices (V) and a set of edges (E) between vertices.

a) Draw all **graphs** on three vertices. Let $V = \{v_1, v_2, v_3\}$

b) What is the **number** of all possible graphs with n vertices?

2. Let **a** be a positive integer whose set of prime factors is $\{p_1, p_2, \dots, p_m\}$. Let **b** be a positive integer whose set of prime factors is $\{q_1, q_2, \dots, q_n\}$. How can you form the **least common multiple** of a and b when you know the sets of their prime factors?