

QUIZ NUMBER NINE FOR MTH213 SPRING007 AT 1PM

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Name \_\_\_\_\_, Id. Num. \_\_\_\_\_, Score  $\overline{15}$

**QUESTION 1.** Draw the complementary graph of  $K_{2,3}$ , then find its girth and its diameter.

**QUESTION 2.** Consider  $Q_5$ . How many edges does it have? If  $P_0, P_1, P_2, \dots, P_{31}$  are the vertices of  $Q_5$ , find all vertices that are connected by an edge to  $P_9$ . What is the diameter of  $Q_5$ ?

**QUESTION 3.** Is it possible to construct a graph with 8 vertices such that exactly 3 vertices have odd degrees? explain

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