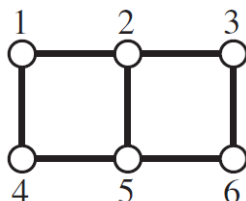# Discrete Mathematics, 2016 Spring - Worksheet 24

December 5, 2016

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In all of the above problems explain your answer in full English sentences.
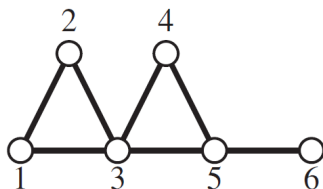
1. The following picture represents a graph. Please write it as a pair of set (V, E).
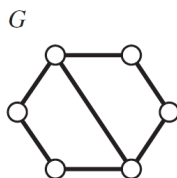

2. Draw a picture of the following graph.

$$(\{a, b, c, d, e\}, \{\{a, b\}, \{a, c\}, \{a, d\}, \{b, e\}, \{c, d\}\})$$

3. Let G be a graph in the figure. Draw pictures of the following subgraphs.

   (a) $G - \{3\} =$.
   (b) $G - \{5, 6\}$
   (c) $G[\{2, 4, 6\}]$
   (d) $G[\{1, 2, 4, 5\}]$.

4. Let G be the graph in the picture.

   (a) Draw the complement graph $\bar{G}$.
   (b) Find $\alpha(G)$ and $\omega(G)$.