

Student Information

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Answer 1

The graph G can be represented by a pair (V, E) where V is the set of vertices, and E is the set of edges. $V = \{\mathbf{a}, \mathbf{b}, \mathbf{c}, \mathbf{d}, \mathbf{e}\}$ and $E = \{\{\mathbf{a}, \mathbf{b}\}, \{\mathbf{a}, \mathbf{c}\}, \{\mathbf{a}, \mathbf{e}\}, \{\mathbf{b}, \mathbf{c}\}, \{\mathbf{b}, \mathbf{e}\}, \{\mathbf{c}, \mathbf{d}\}, \{\mathbf{d}, \mathbf{e}\}\}$. Therefore, $|V| = 5$, and $|E| = 7$.

a) $\sum_{v \in V} \deg(v) = 2 \cdot |E| = 14$ since all edges increase the degree of two vertices they connect by one.

b) another item

Answer 2

Answer 3

Answer 4