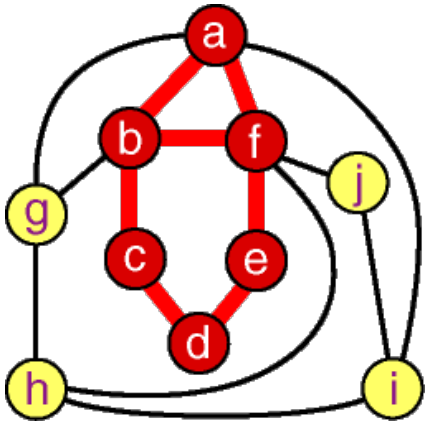
1. Consider the 10-vertex graph G below. What type of graph property does the 6-vertex subgraph of red vertices and edges have relative to graph G?



(3 points)

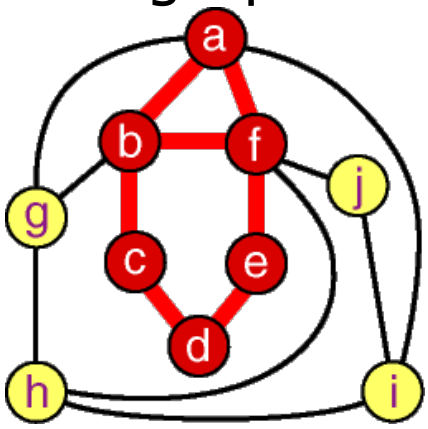
A. spanning

✓ B. induced

C. complete

D. none of the above

2. How many distinct K_3 subgraphs are in the 10-vertex graph G below?



(3 points)

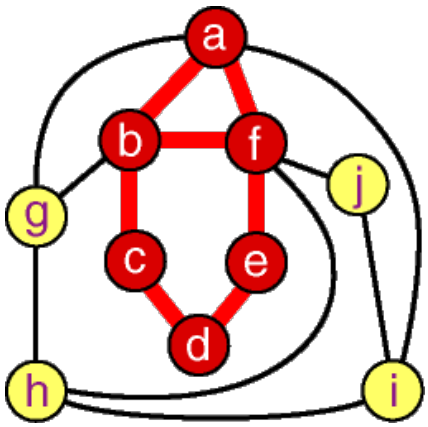
A. 0

B. 1

✓ C. 2

D. 3

3. Within the 10-vertex graph G shown below, consider the 4-vertex subgraph G_1 defined by the vertex set $V_1=\{f,h,i,j\}$. Which of the following subgraphs (defined by their vertex sets) is <u>isomorphic</u> to G_1?



(3 points)

A. $V_2=\{a,b,e,f\}$

B. $V_3=\{a,b,g,h\}$

C. $V_4=\{a,b,f,j\}$

✓ D. $V_5=\{a,g,h,i\}$