

Level 3 Special Project

Graphs



Prerequisite Concepts	Concept 12
Key Concepts	Concept 15

The graph shown in Figure 1 consists of 12 + 2 = 14 vertices and 9 * 2 = 18 edges. The graph can be seen as containing 2 centrally located vertices, c_1 and c_2 , and 12 peripheral vertices $p_1, \ldots p_{12}$. In this graph, c_1 and c_2 are each connected to 9 peripheral vertices. Note that there are edges between c_1 and c_2 and the vertices on the top and bottom. However, it is only c_1 that connects to the vertices on the left and only c_2 that connects to the vertices on the right.

Using the higher-order function map, write a Bricklayer program that creates a graph similar to the one shown below. Before building this artifact it is recommended that you complete all Vitruvia exercises for Concept 15.



Figure 1: A graph with 14 vertices and 18 edges.