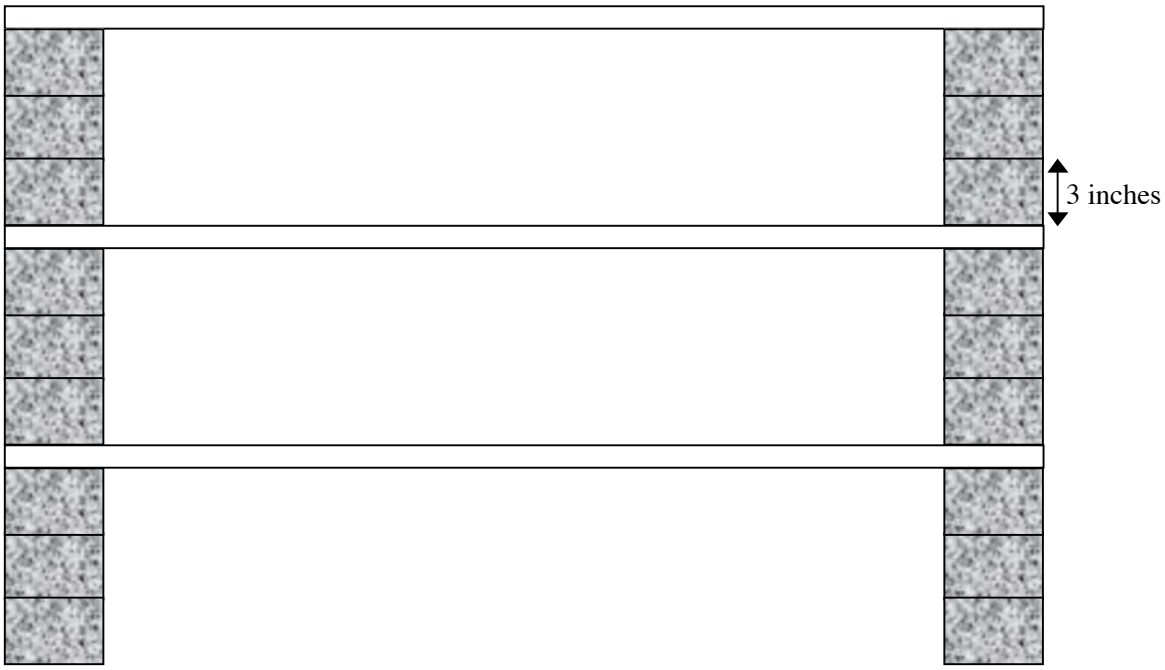
Shelves

Pete is making a bookcase for his books and other stuff.

He already has plenty of bricks and can get planks of wood for $2.50 each.

Each plank of wood measures 1 inch by 9 inches by 48 inches. Each brick measures 3 inches by 4.5 inches by 9 inches.

For each shelf, Pete will put three bricks at each end then put a plank of wood on top. The diagram shows three shelves.



1. Pete wants five shelves in his bookcase.

   a. How many planks of wood does he need? _____

   b. How many bricks does he need? _____

   c. How high will the shelves be? _____

   d. How much will the bookcase cost? _____

The diagram below shows graphs with the following descriptions:

Description One: The cost of the bookcase against the number of shelves.

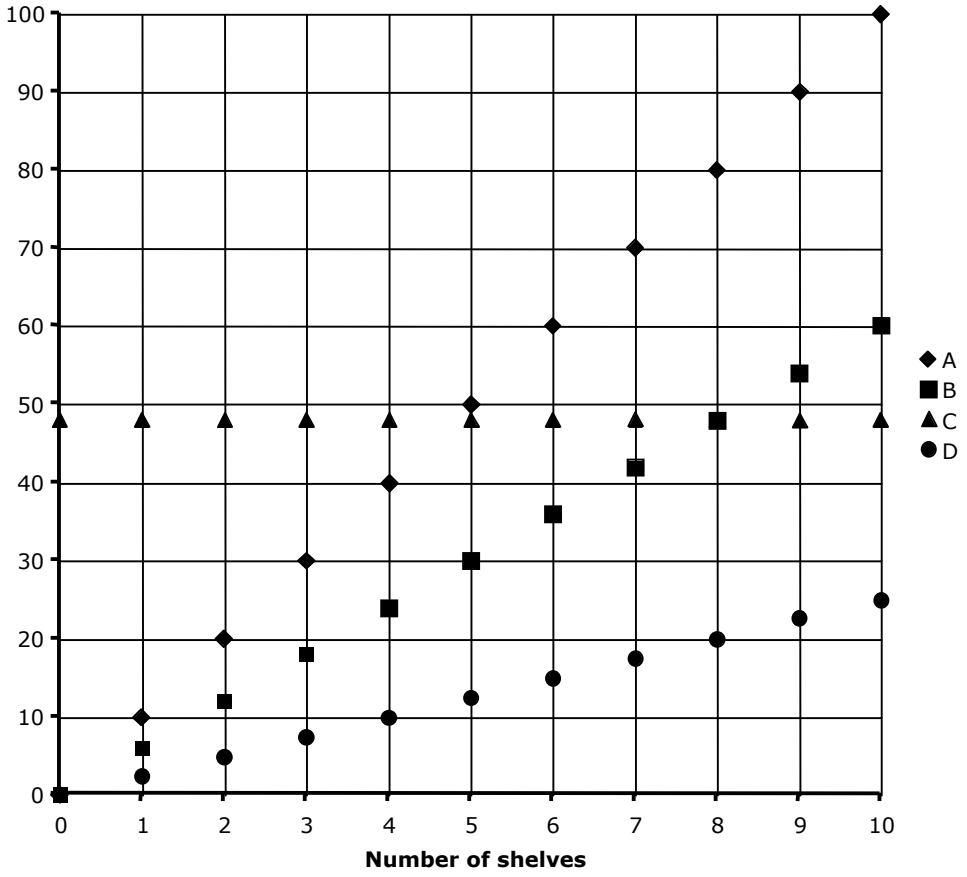
Description Two: The number of bricks against the number of shelves.

Description Three: The height of the bookcase against the number of shelves.

Description Four: The width of the bookcase against the number of shelves.

The equations of the graphs are

$y = 48$, $y = 10x$, $y = 6x$, $y = 2.5x$



2. Complete this table to match each graph with its description and its equation.

Graph letter	Description number	Equation
A		
B		
C		
D		