

Problem Solving Week 4

Foundation:

Bob has a **circular** tank with a diameter **and** depth of 10m.

He begins to fill the tank with water at a constant rate of 15m^3 per minute.

(a) Find the volume of the tank.

(b) Show that the tank can be filled in less than 53 minutes.

Higher:

In a school the ratio of boys to girls is 1:1.5

A number of girls leave such that the percentage of girls in the school has dropped by 12%. What is the new ratio of boys to girls in the school?

You must give your answer in its simplest form.

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