

Your local swimming pool has bought three new pumps for filling up and draining the occasionally used diving pool.

Pump 1 can fill it up in 2 hours

Pump 2 can fill it up in 3 hours

Pump 3 can drain the whole pool in  $1\frac{1}{2}$  hours

If the diving pool was empty how long would it take to fill it up, if all three pumps were on?

