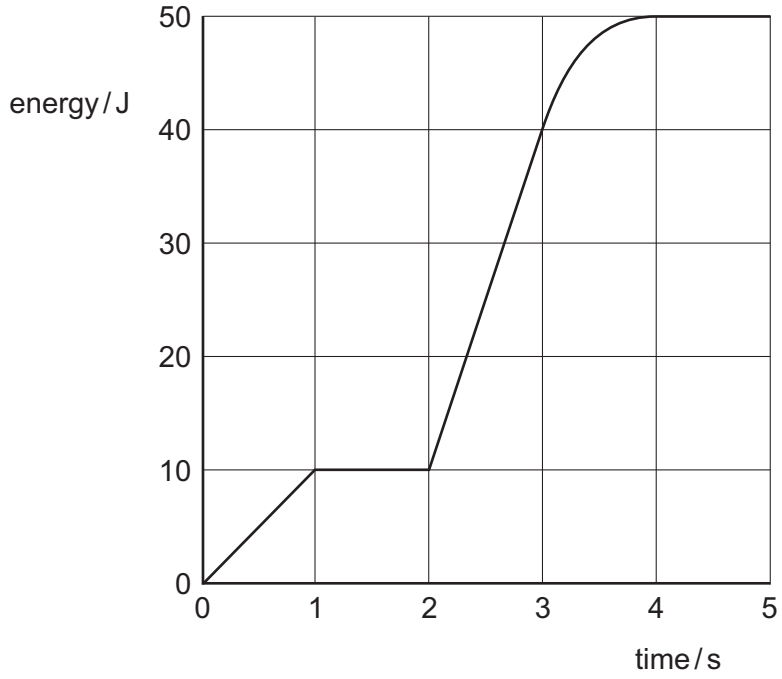
16 An electrical generator is started at time zero. The total electrical energy generated during the first 5 seconds is shown in the graph.



What is the maximum electrical power generated at any instant during these first 5 seconds?

A 10 W **B** 13 W **C** 30 W **D** 50 W

17 A concrete cube of side 0.50 m and uniform density 2.0 x 10^3 kg m^{-3} is lifted 3.0 m vertically by a crane.

What is the change in potential energy of the cube?

A 0.75 kJ **B** 7.4 kJ **C** 29 kJ **D** 470 kJ

18 The hydrostatic pressure p at a depth h in a liquid of density ρ is given by the formula $p = h\rho g$.

Which equation, or principle of physics, is used in the derivation of this formula?

A density = mass ÷ volume

B potential energy = mgh

C atmospheric pressure decreases with height

D density increases with depth