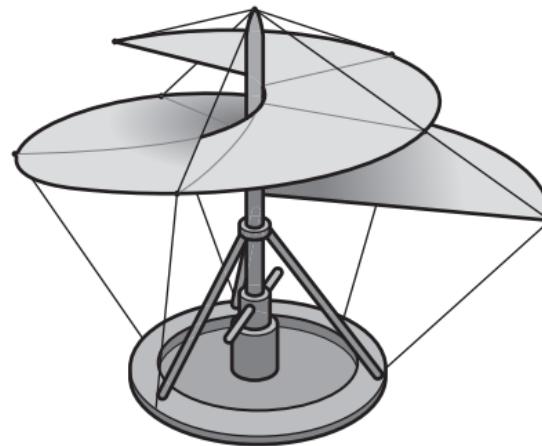


- 12 Leonardo da Vinci proposed a flying machine that would work like a screw to lift the pilot into the air. The 'screw' is rotated by the pilot.



The machine and the pilot together have a total mass of 120 kg.

Which useful output power must the pilot provide to move vertically upwards at a constant speed of  $2.5 \text{ m s}^{-1}$ ?

A 48W

B 300W

C 470W

D 2900W