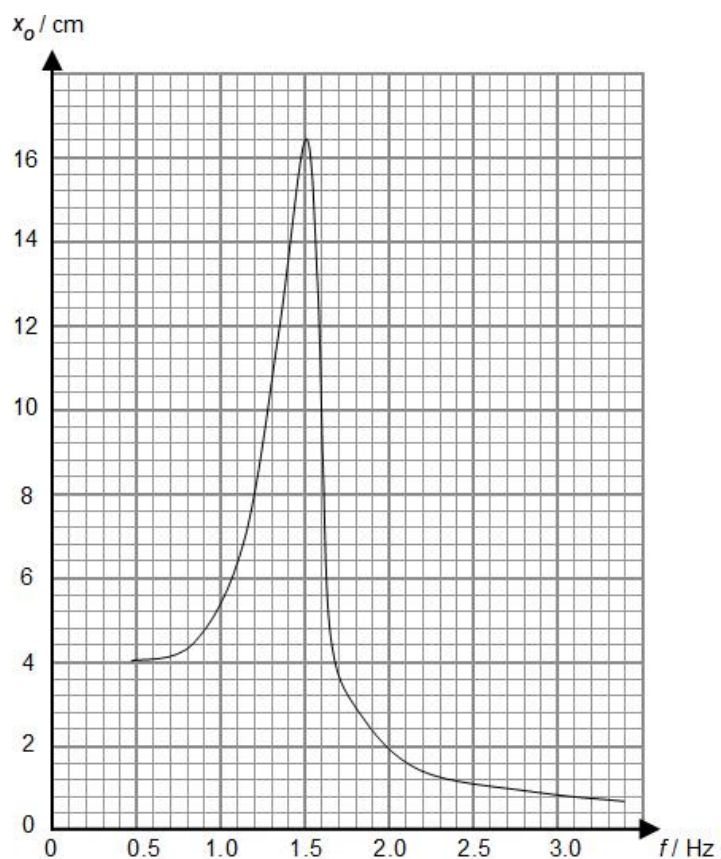


- 16 The diagram below shows the variation with frequency  $f$  of the amplitude  $x_0$  of the forced oscillation of a machine.



At resonance, what is the maximum speed of the machine and the degree of damping it experiences?

|          | maximum speed / $\text{m s}^{-1}$ | degree of damping |
|----------|-----------------------------------|-------------------|
| <b>A</b> | 1.55                              | light             |
| <b>B</b> | 1.55                              | heavy             |
| <b>C</b> | 14.6                              | light             |
| <b>D</b> | 14.6                              | heavy             |