

Question 1

Observe the PhET simulation with two identical springs. A 50 g block is suspended from one and a 100 g from the other.

Let T_{50} denote the period of the 50 g mass and T_{100} that of the 100 g mass. Based on your observations, which is correct?

1. $T_{50} = T_{100}$
2. $T_{50} > T_{100}$
3. $T_{50} < T_{100}$

Question 2

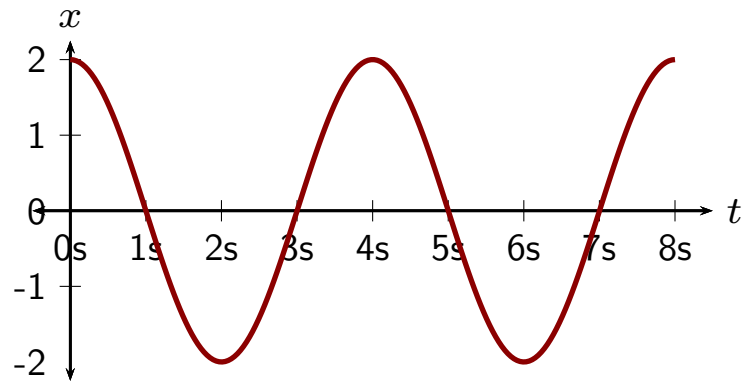
Observe the PhET simulation with two identical springs. A 50 g block is suspended from one and a 100 g from the other.

Let f_{50} denote the frequency of the 50 g mass and f_{100} that of the 100 g mass. Based on your observations, which is correct?

1. $f_{50} = f_{100}$
2. $f_{50} > f_{100}$
3. $f_{50} < f_{100}$

Question 3

The position of an oscillating block and spring system versus time is plotted below.



Which of the following best represents the period of the block?

1. $T = 1 \text{ s}$
2. $T = 2 \text{ s}$
3. $T = 4 \text{ s}$
4. $T = 6 \text{ s}$
5. $T = 8 \text{ s}$