Video Set Introduction

SAGE

```
nameCheck = function(a,b) {
  return a.toLowerCase() != b.toLowerCase();
};
```

Before watching the videos, think about and answer these questions to the best of your ability. Your answer will always be recorded as correct, regardless of your answer choice.

A car speeds up as it drives away from a traffic light. The cars GPS unit records its distance from the light in the table below:

Table 1: Time and Distance

Time (seconds)	Distance (meters)
0	0
1	1
2	3
3	6
4	10
5	15
6	21
7	27

Problem 1 *Compute an approximation of the cars speed at the 5-second mark.*
?.

Problem 2 *Is the value you computed:*

Multiple Choice:

(a) *Equal to the cars speed at the 5-second mark*

(b) *An underestimate of the cars speed at the 5-second mark*

(c) *An overestimate of the cars speed at the 5-second mark*

Learning outcomes:
Author(s):

(d) *Neither an underestimate nor an overestimate*

(e) *You cant tell without having more information*

Problem 3 *How could you improve your approximation of the cars speed at the 5-second mark?*

Multiple Choice:

(a) *You dont need to make an improvement because the speed you calculated* is *the cars speed at the 5-second mark*

(b) *Use a different pair of points from the table to compute the speed*

(c) *Use two pairs of points from the table to compute two speeds, and then average these speeds*

(d) *Use a larger interval of time (e.g., if you originally used a 1-second time interval, a 2-second time interval would improve your approximation)*

(e) *Use a smaller interval of time (which would require additional information)*
