Name: _____ Date: _____

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Section 6.3 Math Link

This worksheet will help you with the Math Link on page 243.

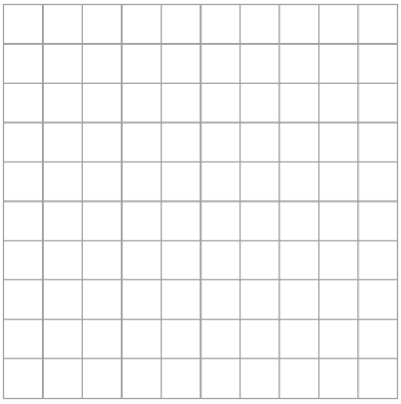
The world's fastest submarines can reach speeds of 74 km/h in 60 s, starting from rest. If a submarine is already moving, then the time to reach its top speed will differ.

1. Choose four different starting speeds up to a maximum of 74 km/h. Assume that the acceleration is the same. For each speed include:

- a table of values
- a graph that shows the relationship between speed and time
- a description of the graph
- a linear equation

a) The table of values for a starting speed of 37 km/h has been completed for you. Complete the rest of the steps.

Time, *t* (s)	Speed, *s* (km/h)
0	36.99
10	49.33
20	61.66
28	74

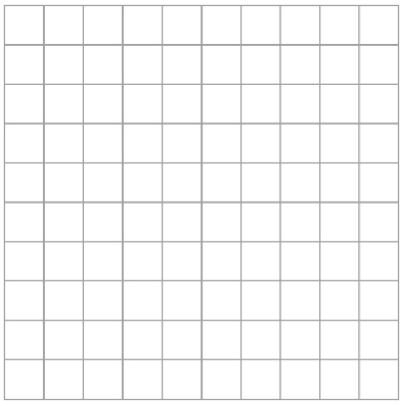


Description: This graph shows that to move from one point to the next, you go _____.

Equation: s = _____

b) a starting speed of _____

Time, *t* (s)	Speed, *s* (km/h)
0	



Name: _____ Date: _____

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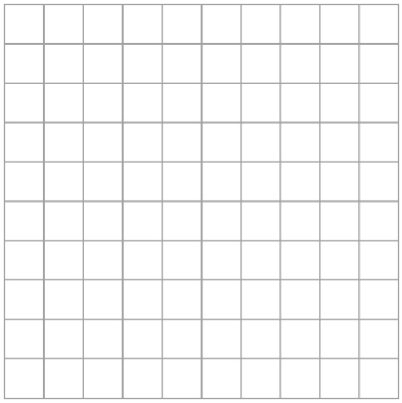
(continued)

Description: _____

Equation: _____

c) a starting speed of _____

Time, *t* (s)	Speed, *s* (km/h)
0	

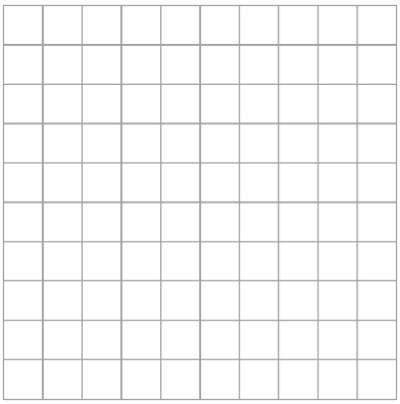


Description: _____

Equation: _____

d) a starting speed of _____

Time, *t* (s)	Speed, *s* (km/h)
0	



Description: _____

Equation: _____

2. On another piece of paper, create a T-chart. Identify similarities and differences between the graphs and the equations.

T-Chart

Similarities	Differences