

Motion Graph Matching

Kinematics Unit



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Robert Prior

Motion graphs are one way of describing an object's motion. This package contains thirty pairs of graphs, to provide practice matching position-time and velocity-time graphs. It can be used on its own, or as a companion to the **KineCards** set.

Instructions

- Print pages 1-8, either single-sided or double-sided.
- Print pages 9-11 single-sided, and cut out the graphs.
- Each graph that you cut out matches one of the graphs on pages 2-7. Position-time graphs match velocity-time graphs, and vice versa. Glue or tape the graphs in the correct position.
- Once you've finished, check your answers to see if you're correct.

Inside

Simple Motion 2

These graphs all represent a single type of motion — for example, *constant positive velocity*.

Compound Motion 3

These graphs represent more than one type of motion — for example, *at rest* followed by *constant positive velocity*.

Any Kind of Motion 4

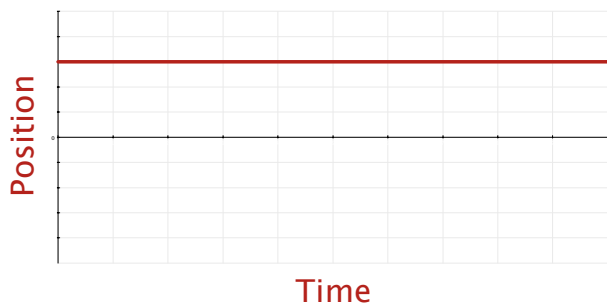
These graphs may be either simple or compound motion.

Answer Key 8

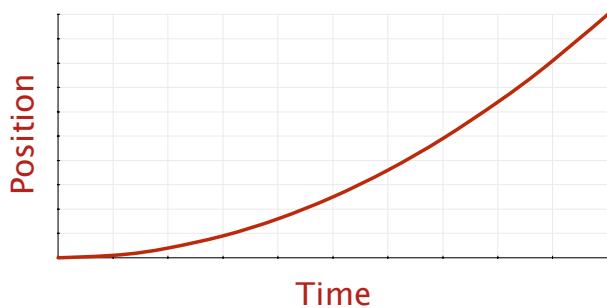
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Simple Motion

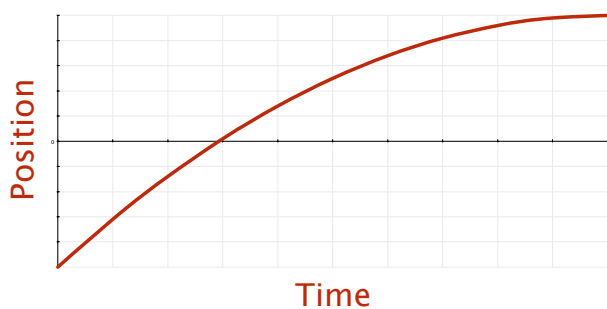
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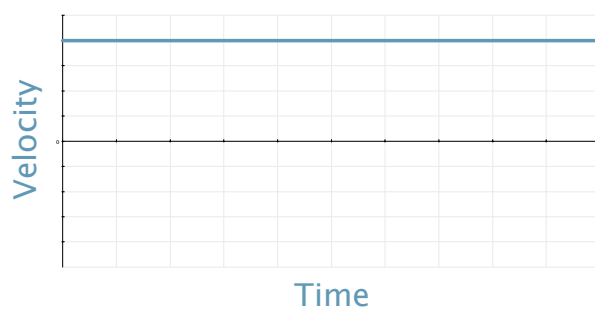
Position-Time Graph



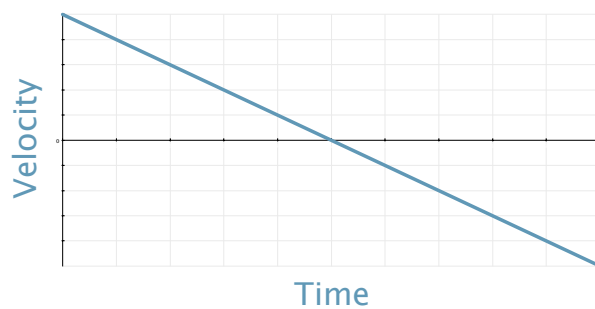
Position-Time Graph



Velocity-Time Graph



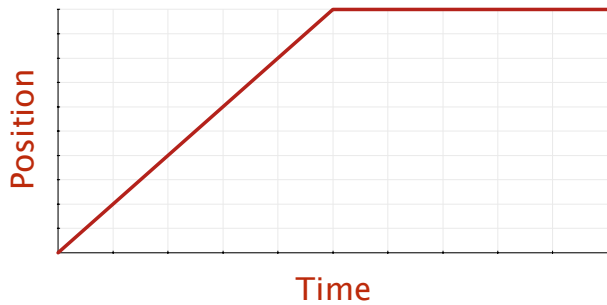
Velocity-Time Graph



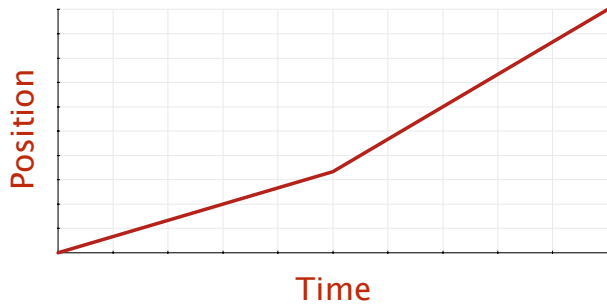
Velocity-Time Graph

Compound Motion

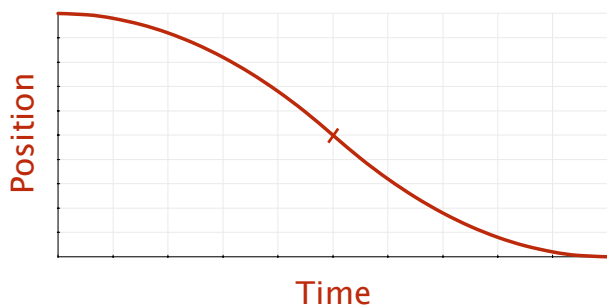
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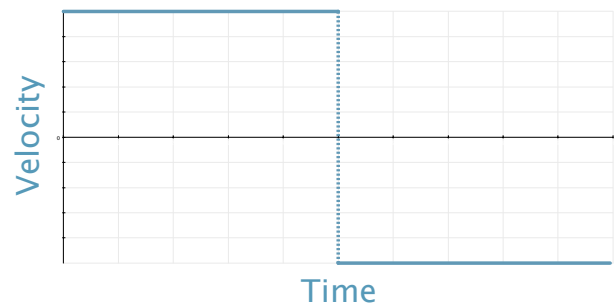
Position-Time Graph



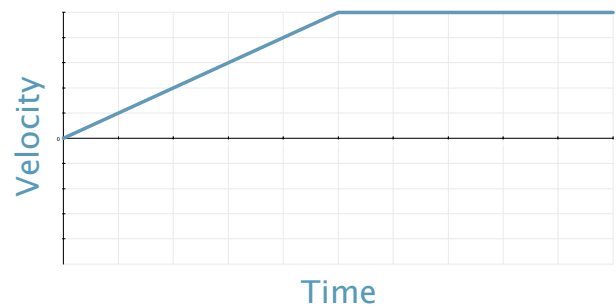
Position-Time Graph



Velocity-Time Graph



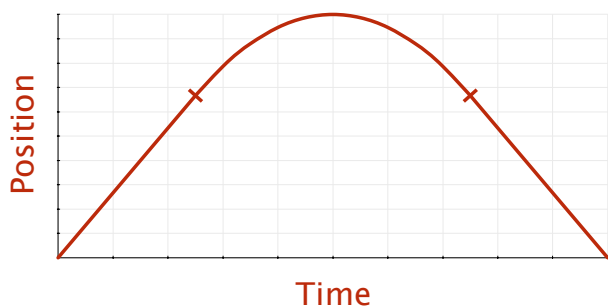
Velocity-Time Graph



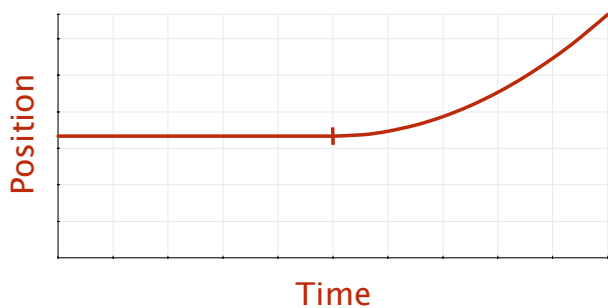
Velocity-Time Graph

Any Kind of Motion

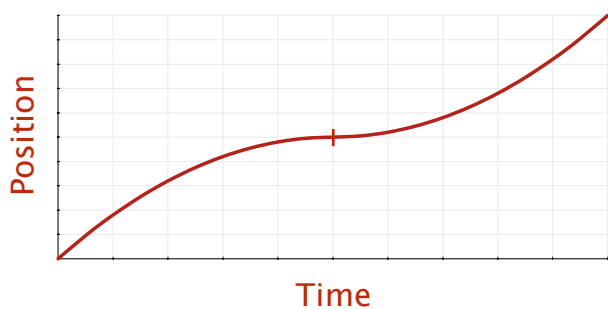
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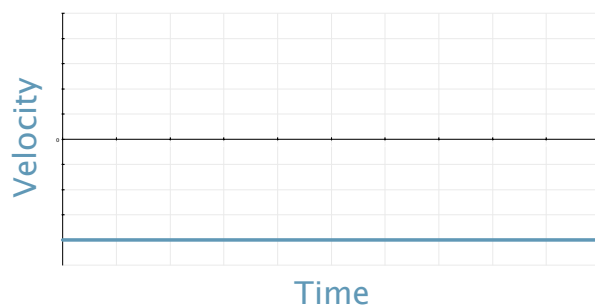
Position-Time Graph



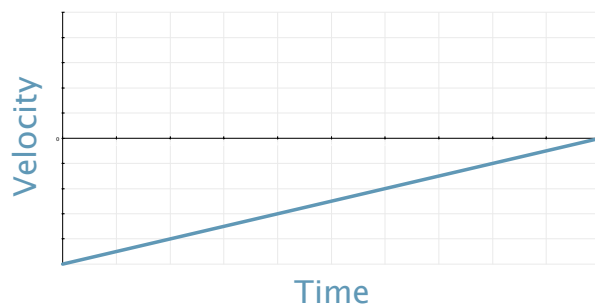
Position-Time Graph



Velocity-Time Graph



Velocity-Time Graph

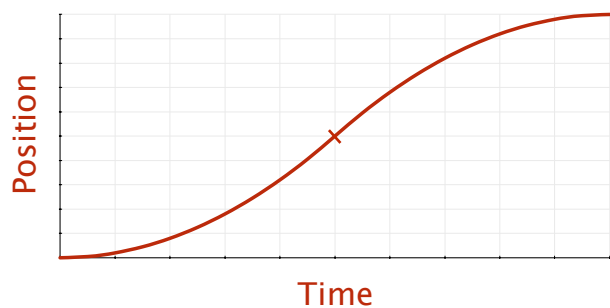
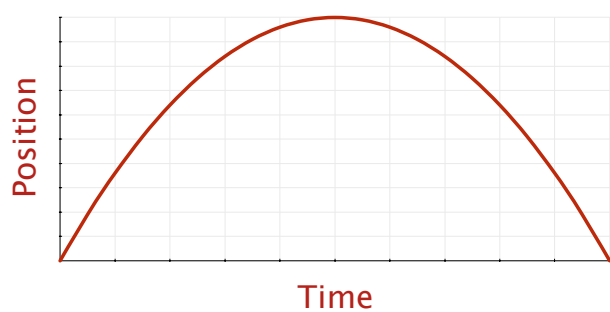


Velocity-Time Graph

Any Kind of Motion

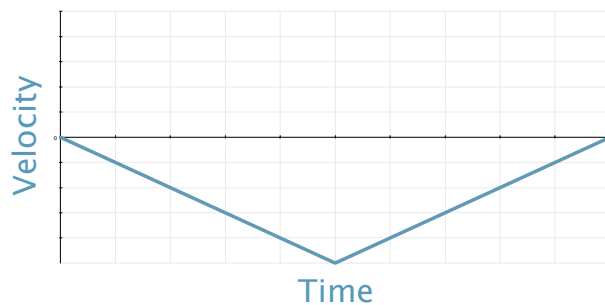
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Position-Time Graph



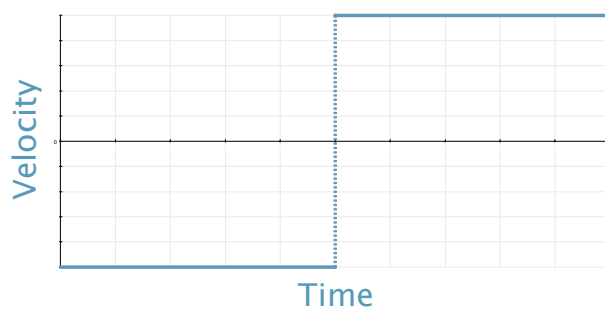
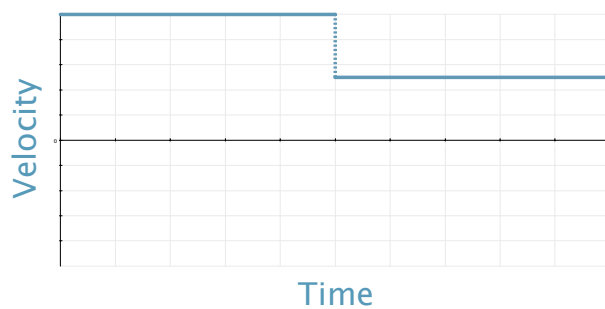
Position-Time Graph

Position-Time Graph



Velocity-Time Graph

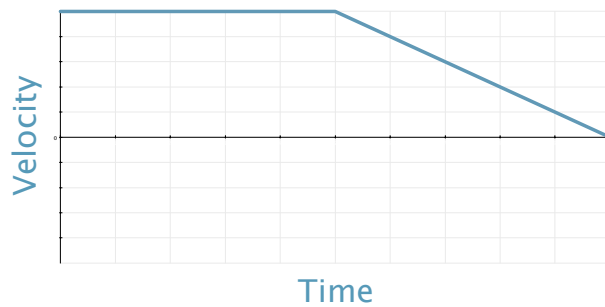
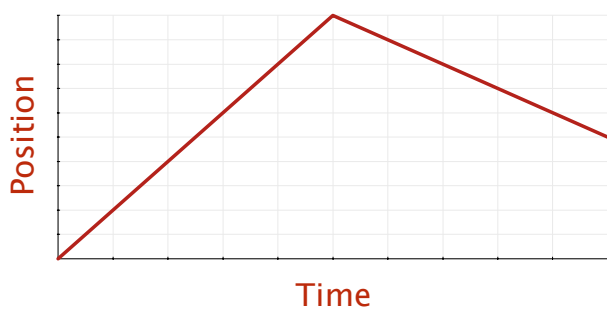
Velocity-Time Graph



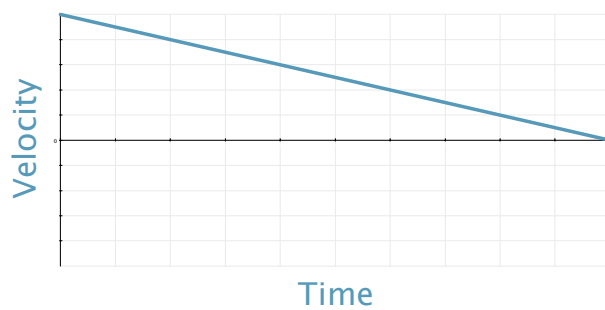
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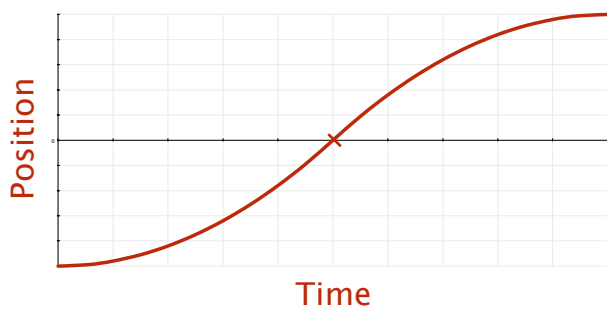
Position-Time Graph



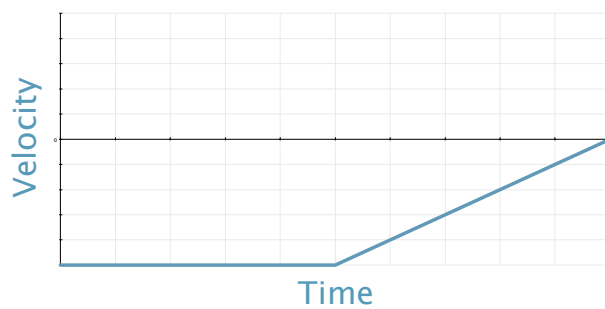
Velocity-Time Graph



Position-Time Graph



Velocity-Time Graph

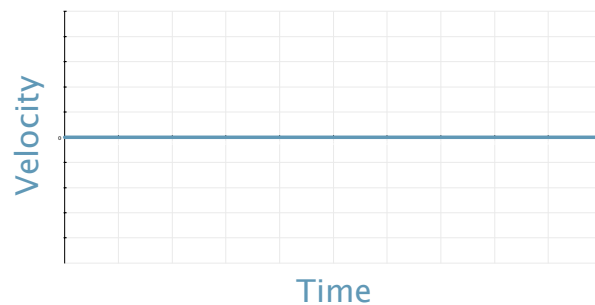


Position-Time Graph

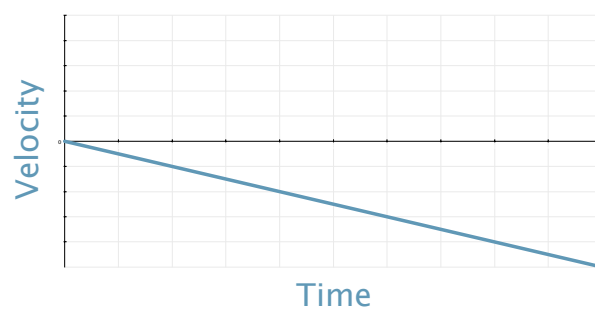
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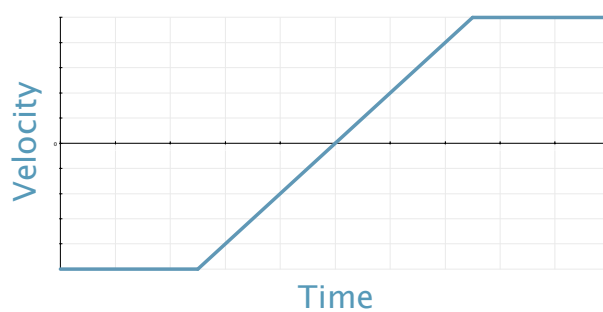
Position-Time Graph



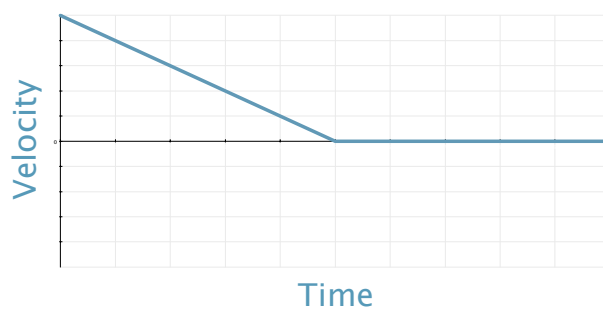
Position-Time Graph



Velocity-Time Graph



Position-Time Graph



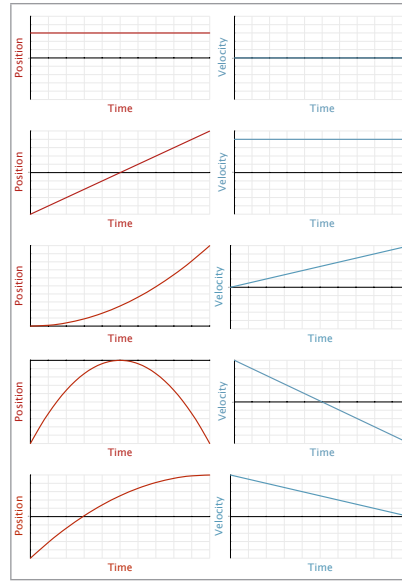
Position-Time Graph



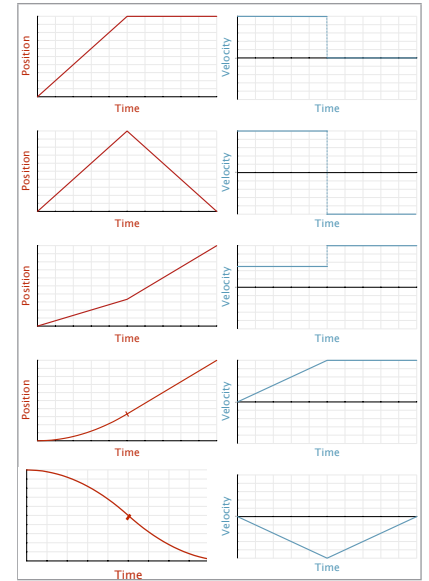
Science is the
great antidote to
the poison of
enthusiasm and
superstition.

Adam Smith,
The Wealth of Nations

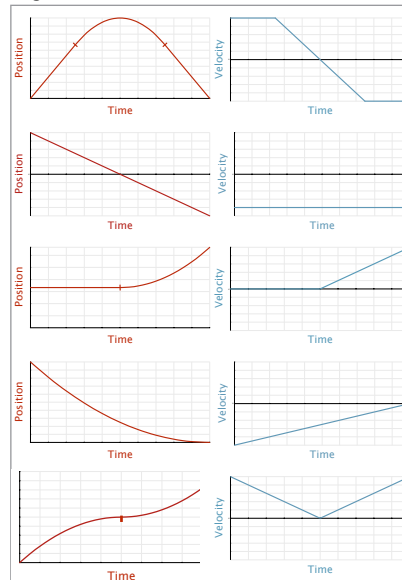
Page 2



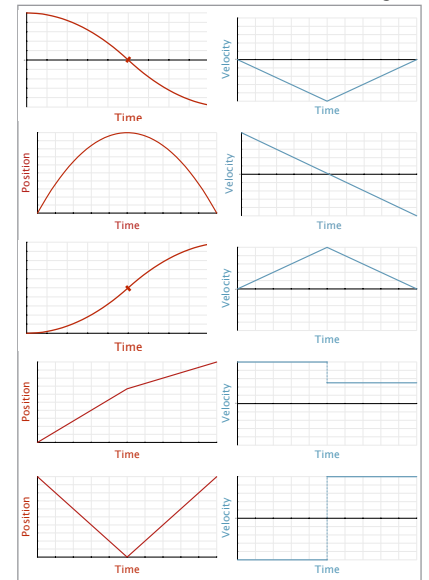
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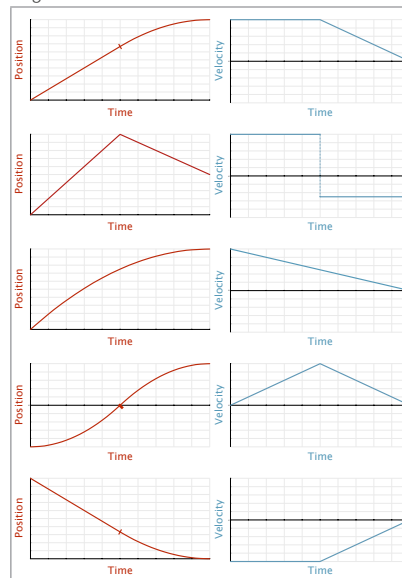
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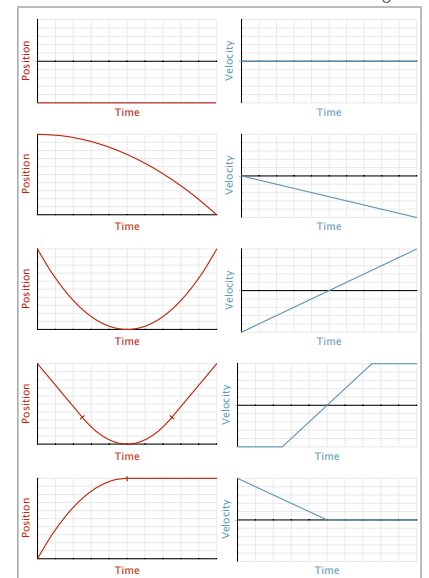
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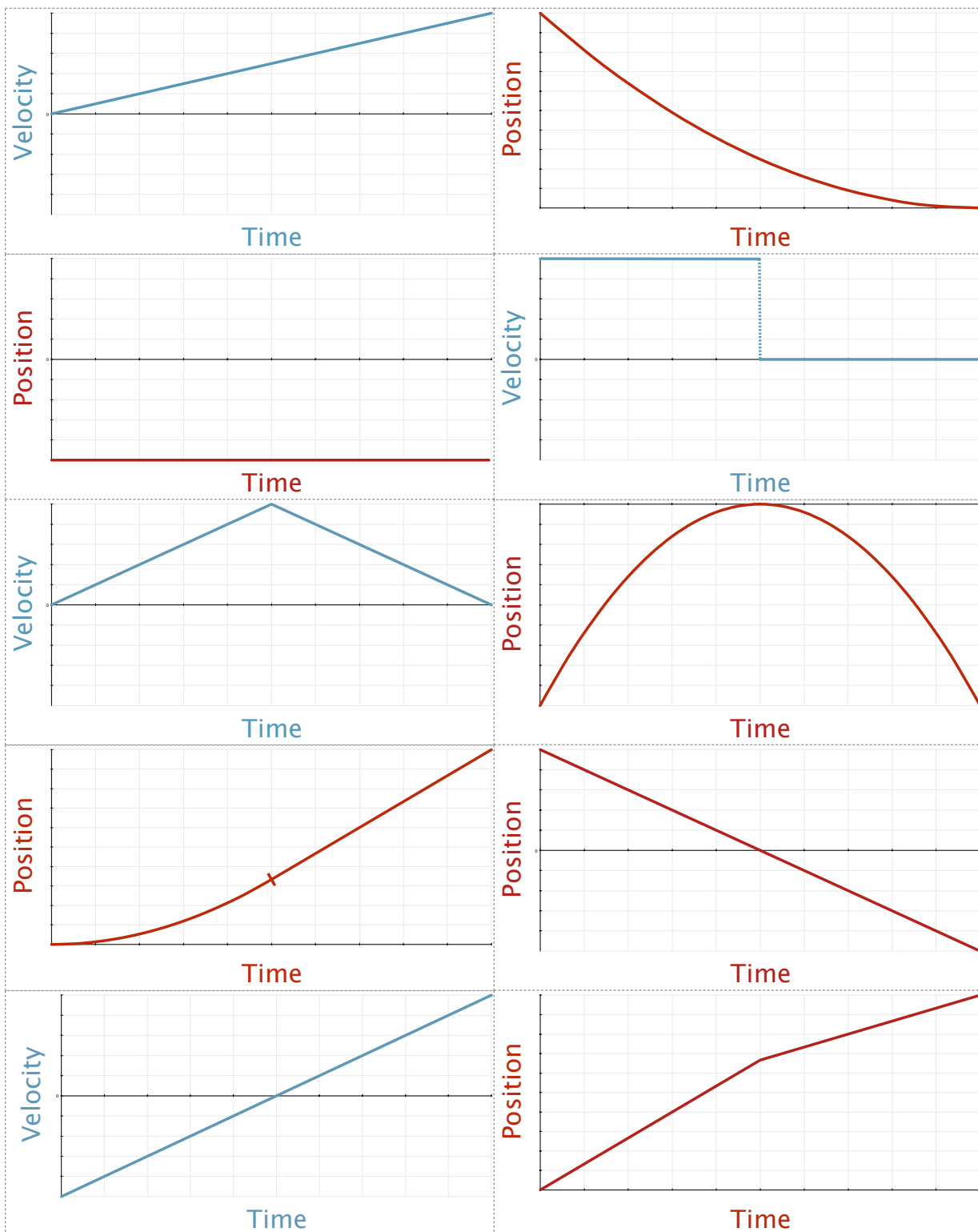
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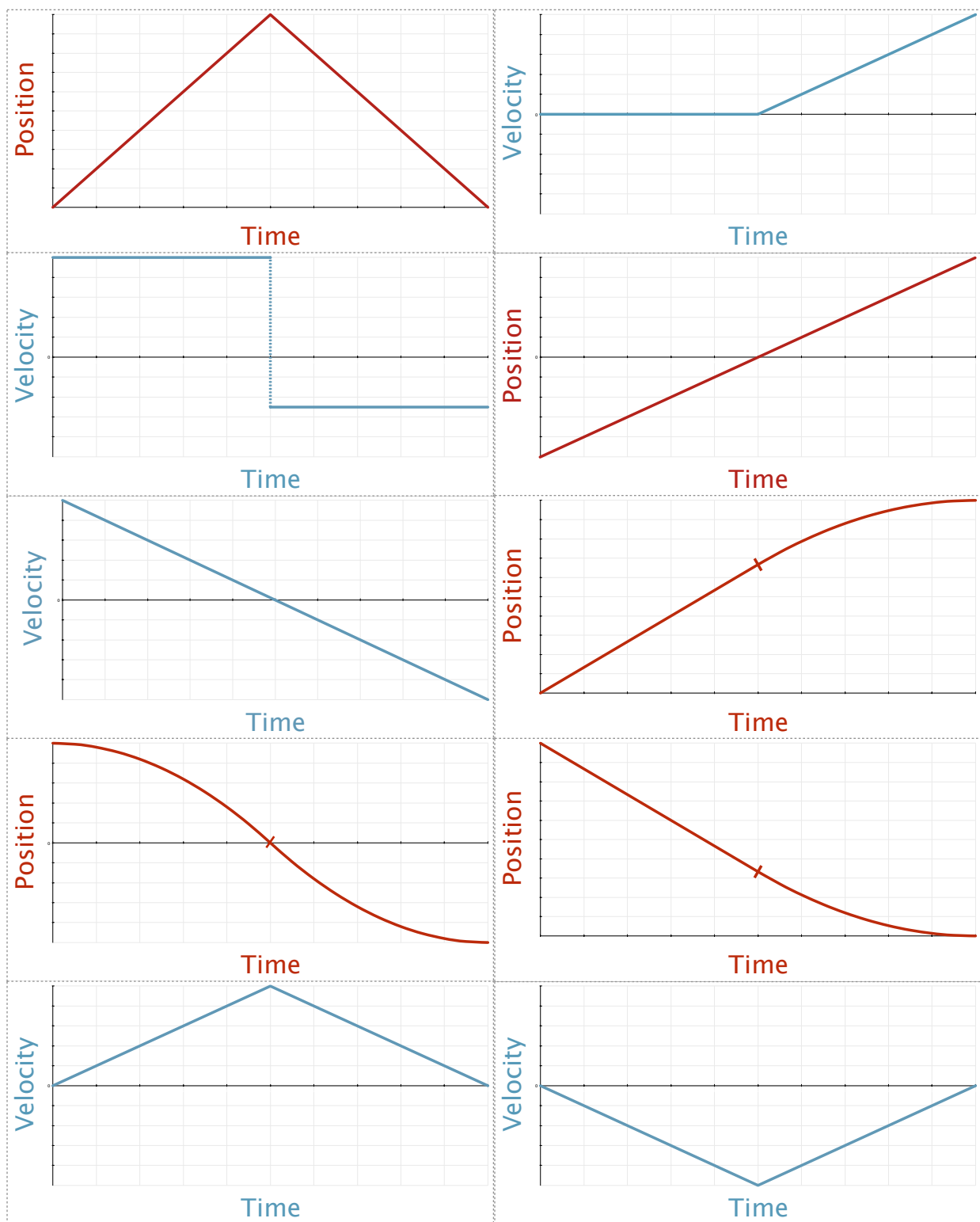
Page 7



Cut these graphs out. For each graph, find its matching graph in the booklet and glue it beside it.



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