

# MBF-3C Fire Fighter Math

	Level 1	Level 2	Level 3	Level 4
<b>Knowledge and Understanding</b> --basic conversions (M1 - Part 1)  -- probability of fire ignition (M2 )  --Quadratic features (M3 - Part 1)	Calculate basic conversions with limited success  Calculate probability with limited success  Labels some features with limited success.	Calculate basic conversions with some success  Calculate basic conversion with some success  Labels most features with some success.	Calculate basic conversions with considerable success  Calculate basic conversion with considerable success  Labels all features with considerable success.	Calculate basic conversions high level of effectiveness  Calculate basic conversion with a high level of success  Labels all features with a high degree of effectiveness.
<b>Thinking</b> -- using conversion in real world application (M1 - Part 2)  -- Calculating effects on ROS (M2)  -- solving quadratic word problems (M3 - Part 3)	-able to use firefighting conversions and estimation techniques with limited effectiveness  -correctly uses tools, diagrams and problem solving techniques to solve ROS questions with considerable support  -has difficulty applying quadratic models, tools, processes and equations in context with considerable support  -has difficulty modifying quadratic models to suit particular applications	-able to use firefighting conversions and estimation techniques with some effectiveness  -correctly uses tools, diagrams and problem solving techniques to solve ROS questions some of the time  -with some success is able to apply quadratic models, tools, processes and equations in context with considerable support  -has difficulty modifying quadratic models to suit particular applications some of the time	-able to use firefighting conversions and estimation techniques with considerable effectiveness  -correctly uses tools, diagrams and problem solving techniques to solve ROS questions  -able to apply quadratic models, tools, processes and equations in context with limited support  -is able to modifying quadratic models to suit particular applications	-able to use firefighting conversions and estimation techniques with a high degree of effectiveness  -correctly uses tools, diagrams and problem solving techniques to solve ROS questions efficiently  -able to apply quadratic models, tools, processes and equations in context without support  -is able to modifying quadratic models to suit particular applications and sees the broader context
<b>Communication</b>  -- uses proper conventions, neat, labeling, etc. (assessed throughout project)	- infrequently uses mathematical language, symbols, visuals and conventions correctly	- uses mathematical language, symbols, visuals, and conventions correctly some of the time	- uses mathematical language, symbols, visuals, and conventions correctly most of the time	- routinely uses mathematical language, symbols, visuals and conventions correctly and efficiently
<b>Application</b> -- Fire worksheet – trigonometry, conversions, slope (M2)  --Sketching quadratics from descriptions (M3 – Part 2)	- graphing and creation of algebraic math models completed with limited effectiveness  Draws and labels some quadratic features with limited success.	- graphing and creation of algebraic math models completed with some effectiveness  Draws and labels most quadratic features with some success.	- graphing and creation of algebraic math models completed with considerable effectiveness  Draws and labels all quadratic features with considerable success.	- graphing and creation of algebraic math models completed with a high degree of effectiveness  Draws and labels all quadratic features effectively