Centripetal Force

$$F = \frac{mv^2}{r}$$

F and m have a "direct" relationship

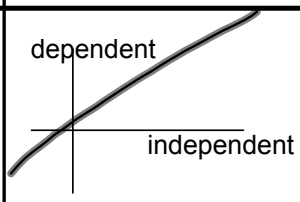
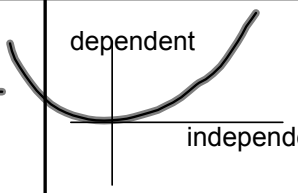
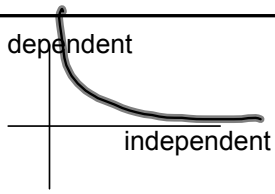
$$F = \frac{mv^2}{r}$$

F and v have a "quadratic" relationship

$$F = \frac{mv^2}{r}$$

F and m have a "direct" relationship

$$F = \frac{mv^2}{r}$$

Relationship name	Basic Equation	Basic Graph	Name of graph
DIRECT	$F = \frac{mv^2}{r}$ $y = mx + b$		LINEAR
QUADRATIC	$y = ax^2$		PARABOLIC
INDIRECT (INVERSE)	$y = \frac{a}{x}$		HYPERBOLIC

y	x
.25	.5
4	2
16	4
64	8
100	10

QUADRATIC

y	x
2	.5
.5	2
.25	4
.125	8
.10	10

INDIRECT

Dependent vs. Independent Variables

grams of fertilizer added daily - plant growth light water air temperature