AP Calculus AB
4.3 Worksheet

Name_____
Date_____ Hour_____

Relationships of f, f', f''

f(x) is increasing	**↔**	**f'(x) _____**
f(x) is decreasing	**↔**	**f'(x) _____**
f(x) has a max/min	**↔**	**f'(x) _____**
f(x) has a POI	**↔**	**f'(x) _____**
f(x) is concave up	**↔**	**f''(x) _____**
f(x) is concave down	**↔**	**f''(x) _____**
f(x) has a POI	**↔**	**f''(x) _____**
f'(x) is increasing	**↔**	**f''(x) _____**
f'(x) is decreasing	**↔**	**f''(x) _____**
f'(x) has a max/min	**↔**	**f''(x) _____**
f'(x) has a POI	**↔**	**f''(x) _____**
f'(x) changes from – to +	**↔**	**f(x) _____**
f'(x) changes from + to –	**↔**	**f(x) _____**
f'(x) has a max/min	**↔**	**f(x) _____**
f''(x) changes from + to –	**↔**	**f(x) _____**
f''(x) changes from – to +	**↔**	**f(x) _____**