**Always, Sometimes, or Never True?**

Directions: Read the statement, then circle the appropriate classification of the statement. Include an example that supports your classification, and a non-example if it applies.

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| Statement | Classification | Example/Counterexample |
| Cubic means the highest power of x is 3. | Always TrueSometimes TrueNever True |  |
| A quadratic will have two x-intercepts because it makes a U shape. | Always TrueSometimes TrueNever True |  |
| An odd degree will always have an x-intercept. | Always TrueSometimes TrueNever True |  |
| The function y=2x2-3x+6 has two zeros. | Always TrueSometimes TrueNever True |  |
| Polynomials make curved lines when graphed. | Always TrueSometimes TrueNever True |  |
| The leading coefficient determines how steep the curve is. | Always TrueSometimes TrueNever True |  |
| A polynomial must have at least three terms. | Always TrueSometimes TrueNever True |  |
| The number of intercepts depends on the highest degree.  | Always TrueSometimes TrueNever True |  |
| The function y=x5+3x3+7 has one real solution. | Always TrueSometimes TrueNever True |  |
| Polynomials with an even degree have the same end behavior. | Always TrueSometimes TrueNever True |  |
| 4th degree polynomial functions look like quadratic functions. | Always TrueSometimes TrueNever True |  |
| Cubic graphs will continuously increase, therefore don’t have a minimum or maximum. | Always TrueSometimes TrueNever True |  |
| Polynomials with an odd degree will have opposite end behavior. | Always TrueSometimes TrueNever True |  |
| The number of turning points depends on the highest degree of the function.  | Always TrueSometimes TrueNever True |  |
| The constant effects the steepness of the curve. | Always TrueSometimes TrueNever True |  |