

Name: _____

Hour: _____

Date: _____

Key

End Behavior Practice

DIRECTIONS: 1) Write each polynomial in *standard form*.2) Classify the polynomial by both its ^{a)} *degree* AND ^{b)} *number of terms*.3) Describe the *end behavior* of the polynomial. State what *a* and *n* are...+/- and odd/even.

1) $4x^1 + x^1 + 2$

Standard Form: $5x^1 + 2$ Classification: a) linear
b) binomial

End Behavior:

a: +
n: odd

↑ ↑

4) $1 - 2s + 5s^4$

Standard Form: $5s^4 - 2s + 1$ Classification: a) quartic
b) trinomial

End Behavior:

a: +
n: even ↑ ↑

7) $-1 + 2x^2$

Standard Form: $2x^2 - 1$ Classification: a) quadratic
b) binomial

End Behavior:

a: +
n: even ↑ ↑

10) $2 + 3x^2 - 2$

Standard Form: $3x^2$ Classification: a) quadratic
b) monomial

End Behavior:

a: +
n: even ↑ ↑

2) $-3 + 3x - 3x^2$

Standard Form: $-3x^2 + 3x - 3$ Classification: a) quadratic
b) trinomial

End Behavior:

a: -
n: even ↓ ↓

5) $5m^2 - 3m^2$

Standard Form: $2m^2$ Classification: a) quadratic
b) monomial

End Behavior:

a: +
n: even ↑ ↑

8) $5m^2 - 3m^3$

Standard Form: $-3m^3 + 5m^2$ Classification: a) cubic
b) binomial

End Behavior:

a: -
n: odd ↑ ↓

11) $6 - 2x^3 - 4 + x^3$

Standard Form: $-x^3 + 2$ Classification: a) cubic
b) binomial

End Behavior:

a: -
n: odd ↑ ↓

3) $6x^4 - 1$

Standard Form: $6x^4 - 1$ Classification: a) quartic
b) binomial

End Behavior:

a: +
n: even ↑ ↑

6) $8x^2 + 3x - 4x^3$

Standard Form: $-4x^3 + 8x^2 + 3x$ Classification: a) cubic
b) trinomial

End Behavior:

a: -
n: odd ↓ ↓

9) $5x - 7x^2$

Standard Form: $-7x^2 + 5x$ Classification: a) quadratic
b) binomial

End Behavior:

a: -
n: even ↓ ↓

12) $6x - 7x$

Standard Form: $-x$ Classification: a) linear
b) monomial

End Behavior:

a: -
n: odd ↑ ↓