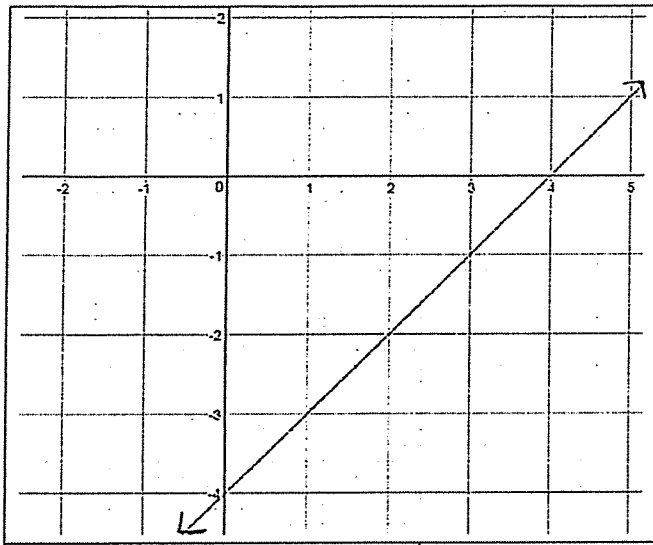
Name: Key Hour: ____ Date: _____

End Behavior Practice I

For each graph do the following: (a) Determine if the relation represents a function and explain why/why not

(b) State the domain and range using interval notation

(c) Using the proper form, describe end behavior



Function? (YES) or NO

Explanation: Each x has exactly 1 y

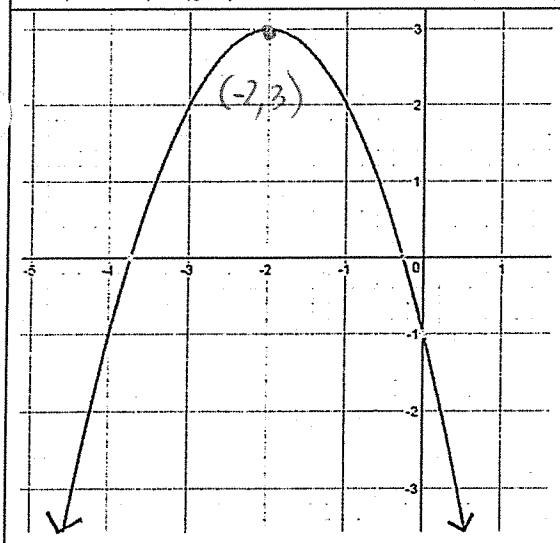
Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

End Behavior:

Left: As x approaches $-\infty$, y approaches $-\infty$.

Right: As x approaches ∞, y approaches ∞.



Function? (YES) or NO

Explanation: Each x has exactly 1 y

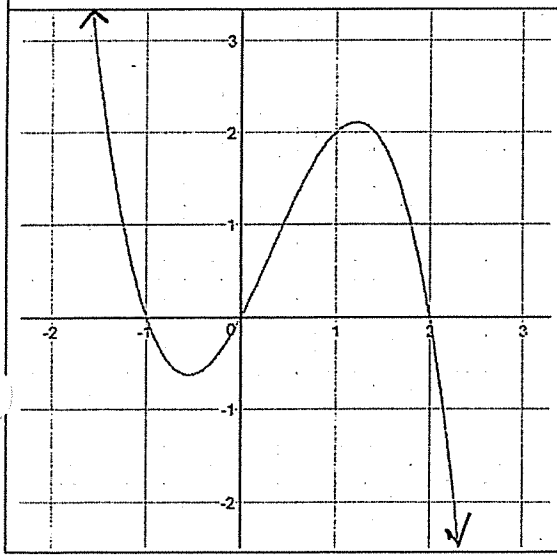
Domain: $(-\infty, \infty)$

Range: $(-\infty, 3]$

End Behavior:

Left: As x approaches $-\infty$, y approaches $-\infty$.

Right: As x approaches ∞, y approaches $-\infty$.



Function? (YES) or NO

Explanation: Each x has exactly 1 y

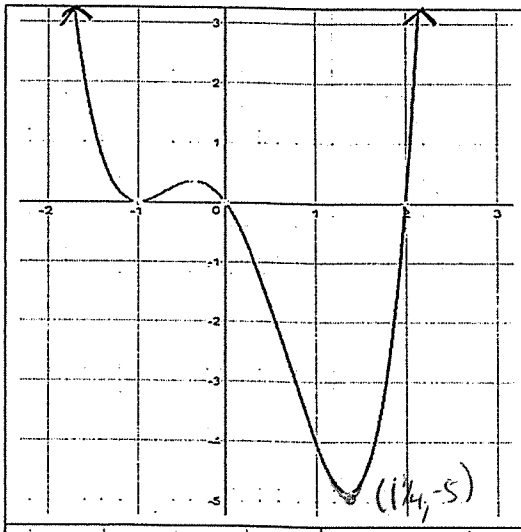
Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

End Behavior:

Left: As $x \to -\infty$, $y \to \infty$

Right: As $x \to \infty$, $y \to -\infty$



Function? (YES) or NO

Explanation: Each x has exactly 1 y

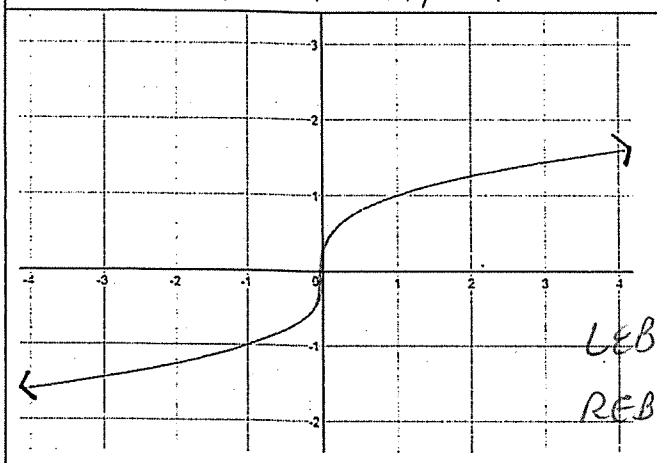
Domain: $(-\infty, \infty)$

Range: $[-5, \infty)$

End Behavior:

Left: As $x \to -\infty$, $y \to \infty$

Right: As $x \to \infty$, $y \to \infty$



Function? (YES) or NO

Explanation: Each x has exactly 1 y

Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

End Behavior:

LEB: As $x \to -\infty$, $y \to -\infty$

REB: As $x \to \infty$, $y \to \infty$

SLOT Practice

DIRECTIONS: Factor each of the following quadratic polynomials. Remember, we have a SLOT quiz on Thursday!

1) $b^2 + 8b + 7$

7, 1, 7, 8 $(b+1)(b+7)$

2) $n^2 - 11n + 10$

10, -1, -10, -11 $(n-1)(n-10)$

3) $m^2 + m - 90$

-90, 10, -9, 1 $(m-9)(m+10)$

4) $n^2 + 4n - 12$

-12, 6, -2, 4 $(n+6)(n-2)$

5) $n^2 - 10n + 9$

9, -1, -9, -10 $(n-1)(n-9)$

6) $b^2 + 16b + 64$

64, 8, 8, 16 $(b+8)^2$