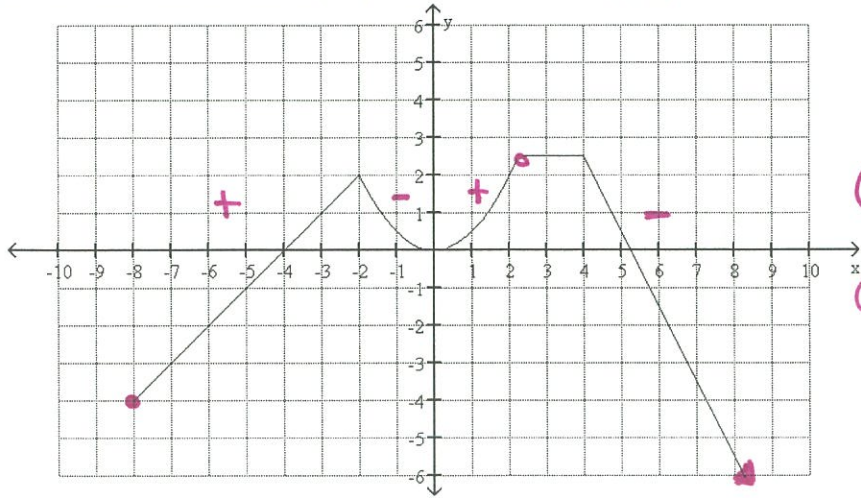


Properties of Functions: an Introduction

Precalculus

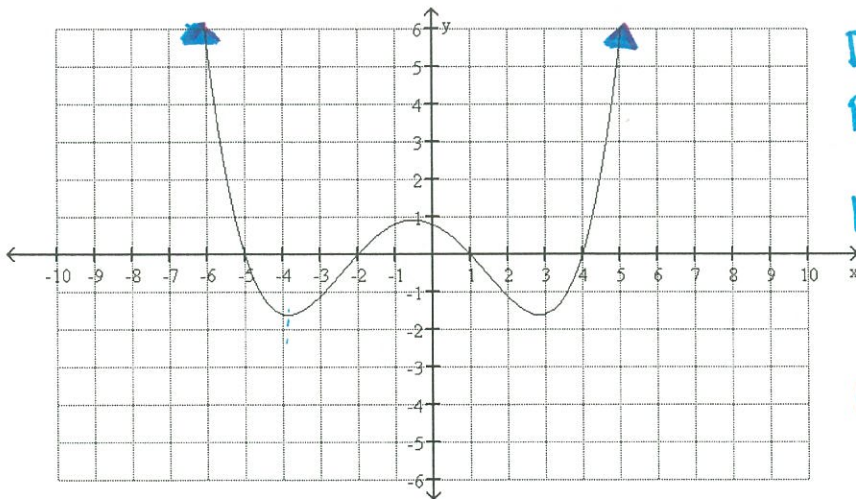
Name Key

1) Describe the characteristics/properties of the following graphs.



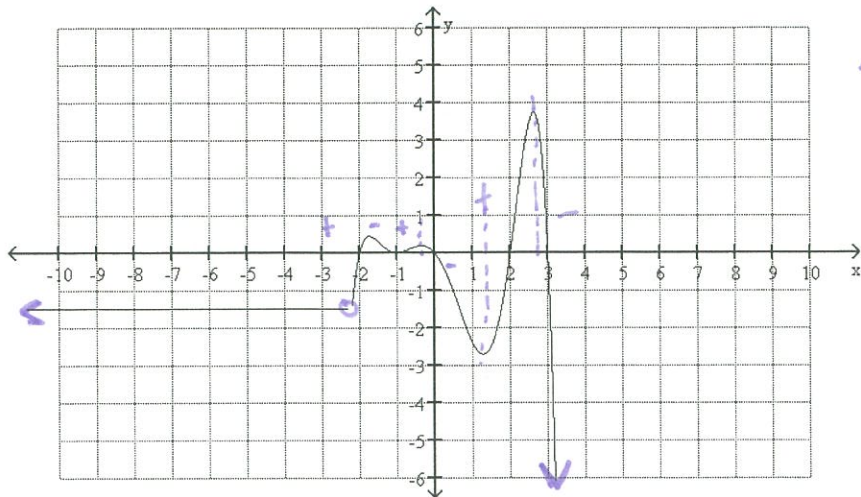
Domain $[-8, 2.2) \cup (2.2, \infty)$
 Range $(-\infty, 2.5]$
 Increasing: $(-8, -2) \cup (0, 2.2)$
 Decreasing: $(-2, 0) \cup (4, \infty)$
 Constant $(2.2, 4)$

Continuous? YES/NO
 ABSOLUTE
 MAX $y = 2.3$ MIN
 Relative/Local
 MAX $y = 2$ MIN $y = -4$
 $y = 0$



Domain $(-\infty, \infty)$
 Range $[-1.6, \infty)$
 Increasing: $(-4, -0.5) \cup (2.8, \infty)$
 Decreasing: $(-\infty, -4) \cup (-0.5, 2.8)$
 Constant: N/A

Continuous? YES/NO
 ABSOLUTE
 MAX MIN $y = -1.6$
 Relative/Local
 MAX $y = 1$ MIN $y = -1.6$



Domain: $(-\infty, -2.2) \cup (-2.2, \infty)$

Range: $(-\infty, 3.7]$

Increasing: $(-2.2, -1.8) \cup (-1, -0.3) \cup (1.4, 2.8)$

Decreasing: $(-1.8, -1) \cup (-0.3, 1.4) \cup (2.8, \infty)$

Constant: $(-\infty, -2.2)$

Continuous: Yes/NO

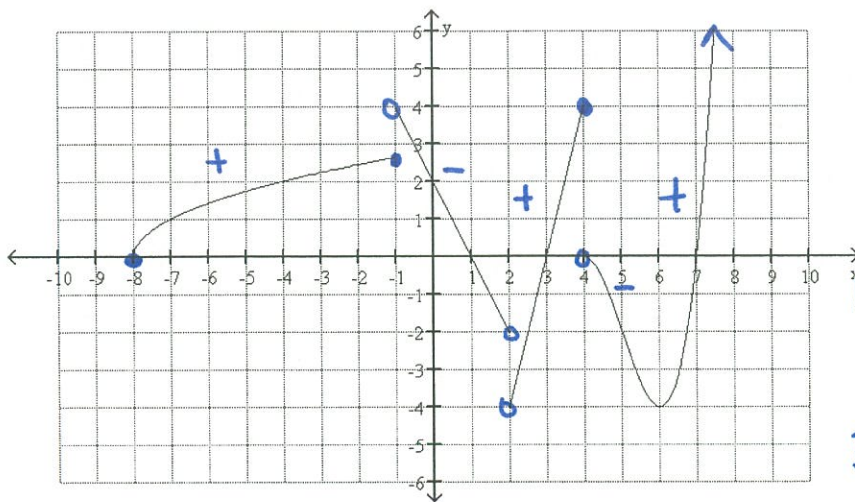
ABSOLUTE

max $y = 3.8$ min $y =$

Relative or Local

max $y = 0.5$
 $y = 0.25$

MIN $y = -1.5$
 $y = 0$
 $y = -2.5$



Domain: $[-8, 2) \cup (2, \infty)$

Range: $[-4, \infty)$

Increasing: $(-8, 1) \cup (2, 4) \cup (6, \infty)$

Decreasing: $(-1, 2) \cup (4, 6)$

Constant: N/A

Continuous Yes/NO

ABSOLUTE

MAX: MIN: $y = -4$

Relative/Local

max: $y = 4$ min: $y = 0$
 $y = 2.5$