

SM3 2.1 odd answers

1. $[-3, \infty)$

3. $(-\infty, \infty)$

5. $(-\infty, 1]$

7. Domain: $(-\infty, \infty)$ Positive: $(-\infty, -5) \cup (9, \infty)$

Range: $[-7, \infty)$ Negative: $(-5, 9)$

x -intercept(s): $(-5, 0), (9, 0)$ Local Min: $(2, -7)$

y -intercept; $(0, -5)$ Local Max: none

Increasing: $(2, \infty)$

Decreasing: $(-\infty, 2)$

9. Domain: $(-\infty, \infty)$ Positive: $(1, 2) \cup (2, \infty)$

Range: $(-\infty, \infty)$ Negative: $(-\infty, 1)$

x -intercept(s): $(-1, 0), (2, 0)$ Local Min: $(2, 0)$

y -intercept; $(0, 2)$ Local Max: $(0, 2)$

Increasing: $(-\infty, 0) \cup (2, \infty)$

Decreasing: $(0, 2)$

11. Domain: $[0, 2]$

Range: $[0, 10]$

x -intercept(s): $(2, 0)$

y -intercept; $(0, 10)$

Increasing Interval(s): N/A

Decreasing Interval(s): $(0, 2)$

Local Max: $(0, 10)$

Local Min: $(2, 0)$

Positive Interval(s): $[0, 2)$

Negative Interval(s): N/A

“What does it mean in context?” answers may vary.