

SM2H--1.2 answers 2019-2020

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

2. $[5, \infty)$

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

4. $(-\infty, 12]$

5. $[\frac{8}{5}, \infty)$

6. $[4, \infty)$

7. Domain: $(-\infty, \infty)$ Range: $(-\infty, 9]$,

Symmetry: neither

Left End Behavior: $\lim_{x \rightarrow -\infty} f(x) = -\infty$

Right End Behavior: $\lim_{x \rightarrow \infty} f(x) = -\infty$

8. Domain: $[-4, \infty)$ Range: $(-\infty, -1]$,

Symmetry: neither

Left End Behavior: $\lim_{x \rightarrow -\infty} f(x) = \text{none}$

Right End Behavior: $\lim_{x \rightarrow \infty} f(x) = -\infty$

9. Domain: $(-\infty, \infty)$ Range: $[-5, \infty)$,

Symmetry: even

Left End Behavior: $\lim_{x \rightarrow -\infty} g(x) = \infty$

Right End Behavior: $\lim_{x \rightarrow \infty} g(x) = \infty$

10. Domain: $(-\infty, \infty)$ Range: $(-\infty, \infty)$,

Symmetry: odd

Left End Behavior: $\lim_{x \rightarrow -\infty} g(x) = \infty$

Right End Behavior: $\lim_{x \rightarrow \infty} g(x) = -\infty$

11. . Domain: $(-\infty, \infty)$ Range: $(-\infty, \infty)$,

Symmetry: odd

Left End Behavior: $\lim_{x \rightarrow -\infty} h(x) = -\infty$

Right End Behavior: $\lim_{x \rightarrow \infty} h(x) = \infty$

12. Domain: $[-7, \infty)$ Range: $[-8, 8]$,

Symmetry: neither

Left End Behavior: $\lim_{x \rightarrow -\infty} f(x) = \text{none}$

Right End Behavior: $\lim_{x \rightarrow \infty} f(x) = 8$

13. Domain is gallons of gas

Range is distance (miles) traveled

Real World Domain is [0 gallons, 15 gallons]

Real World Range is [0 miles, 510 miles]

14. Domain is the minutes burned

Range is the height of the candle

$$h(x) = 20 - 4x$$

Real World Domain is [0 minutes, 5 minutes]

Real World Range is [0 cm, 20 cm]

15. domain: $[0, 1.425]$

range: $[0, \frac{41}{4}]$

16. even

17. odd

18. neither

19. even

20. neither

21. neither

22. Left End Behavior: $\lim_{x \rightarrow -\infty} f(x) = \infty$

Right End Behavior: $\lim_{x \rightarrow \infty} f(x) = -\infty$

23. Left End Behavior: $\lim_{x \rightarrow -\infty} f(x) = \infty$

Right End Behavior: $\lim_{x \rightarrow \infty} f(x) = \infty$

24. Left End Behavior: $\lim_{x \rightarrow -\infty} f(x) = -\infty$

Right End Behavior: $\lim_{x \rightarrow \infty} f(x) = \infty$

25. Left End Behavior: $\lim_{x \rightarrow -\infty} f(x) = \text{none}$

Right End Behavior: $\lim_{x \rightarrow \infty} f(x) = -\infty$

26. $x = \frac{3}{8}$

27. $x = 23$

28. $x = \frac{x+y+4}{3}$

29. $L = \frac{P-2W}{2}$