Exercise 40

Inequalities Write each statement in terms of inequalities.

  (a) y is negative.

  (b) z is greater than 1.

  (c) b is at most 8.

  (d) w is positive and is less than or equal to 17.

  (e) y is at least 2 units from π.

Solution

y is negative: $y < 0$.

z is greater than 1: $z > 1$.

b is at most 8: $b \leq 8$.

w is positive and is less than or equal to 17: $0 < w \leq 17$.

y is at least 2 units from π: $d(\pi, y) \geq 2$ or $|y - \pi| \geq 2$.