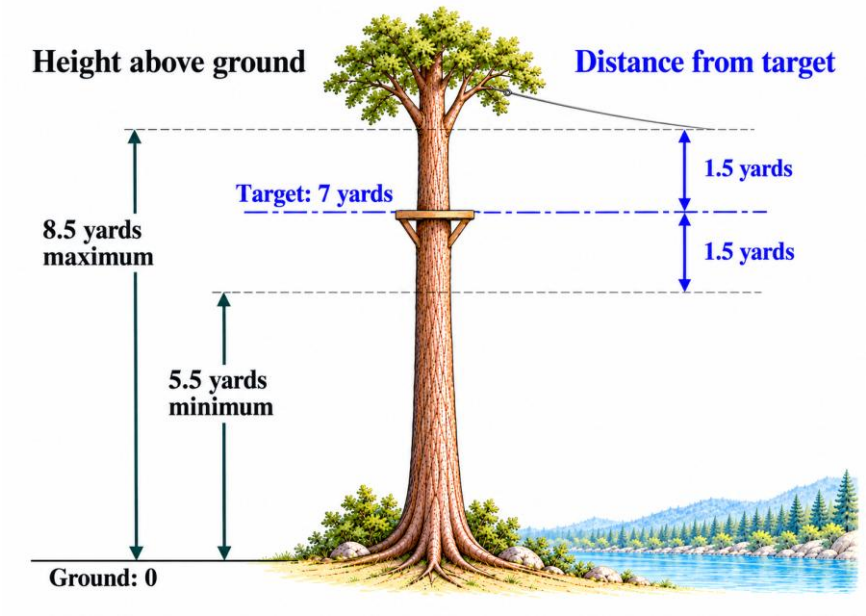
Writing and solving an absolute value inequality that models a real-world situation and interpreting the solution

Kevin is inspecting a zipline at an adventure park. For safety reasons, the top platform must be 7 yards high, plus or minus 1.5 yards, to pass inspection.

Start with the 7-yard target Drawing not to scale



Every height from 5.5 to 8.5 yards is allowed.
Both limits are included.

(a) Write an absolute value inequality

Let x be the platform-top height above ground, in yards. Circle one form and fill its boxes for all acceptable heights.

○ $\left|\square + \square\right| \leq \square$

○ $\left|\square - \square\right| \leq \square$

○ $\left|\square - \square\right| > \square$

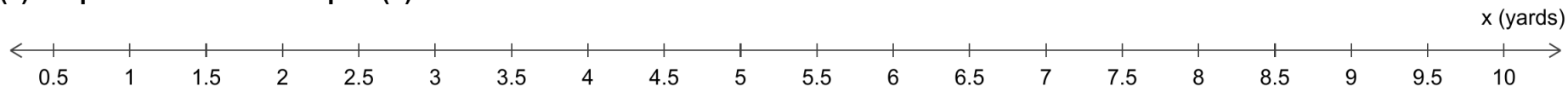
○ $\left|\square + \square\right| > \square$

(b) Solve the inequality from part (a)

Show your steps. Write your solution below.

Solution: ☐

(c) Graph the solution from part (b) on the number line below.



(d) Fill in the blanks. Use: less than • at most • greater than • at least

The zipline will pass inspection if the top platform is ☐ ☐ yards high, and ☐ ☐ yards high.

TOPIC ID: **26-C1**	TOPIC TITLE: Absolute value inequalities	FORESTHILL HIGH SCHOOL
NAME:	BLOCK: DATE:	