

TEKS a.5, a.6, 2A.2.A



Another Way to Solve Example 3, page 42

MULTIPLE REPRESENTATIONS Example 3 of Lesson 1.6 involved solving an inequality using algebra. You can also solve an inequality using a table or a graphing calculator's *test* feature, which tells when an inequality is true or false.

PROBLEM

FAIR You have \$50 to spend at a county fair. You spend \$20 for admission. You want to play a game that costs \$1.50. Describe the possible numbers of times you can play the game.

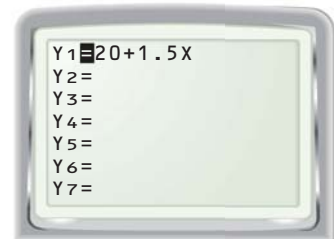
METHOD 1

Using a Table One alternative approach is to make a table of values.

STEP 1 Write an expression for the total cost of admission and playing x games.

Admission fee	+	Cost per game	·	Number of games
↓		↓		↓
20	+	1.50	·	x

STEP 2 Enter the equation $y = 20 + 1.5x$ into a graphing calculator.



STEP 3 Make a table of values for the equation.

UseTblStart = 0 and $\Delta Tbl = 1$ to see these values.

X	Y1
0	20
1	21.5
2	23
3	24.5
4	26

X=0

STEP 4 Scroll through the table of values to find when the total cost is \$50. You can see that $y = 50$ when $x = 20$.

X	Y1
18	47
19	48.5
20	50
21	51.5
22	53

X=20

► The table suggests that $20 + 1.5x \leq 50$ when $x \leq 20$. So, you can play the game at the fair 20 times or fewer.