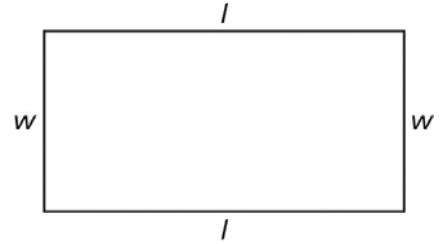


Sec. 7.1-Developing Systems of Linear Equalities

1. a) Create a linear system to model this situation:

The stage at the Lyle Victor Albert Centre in Bonnyville, Alberta, is rectangular. Its perimeter is 158 ft. The width of the stage is 31 ft. less than the length.



b) Sebi has determined that the stage is 55 ft. long and 24 ft. wide. Use the linear system from part a to verify that Sebi is correct.

3. A bicycle has 2 wheels and a tricycle has 3 wheels.

Create a situation about wheels that can be modelled by the linear system below.

Explain the meaning of each variable. Write a related problem.

$$2b + 3t = 100$$

$$b + t = 40$$

2. a) Create a linear system to model this situation:

A school raised \$140 by collecting 2000 cans and glass bottles for recycling. The school received 5¢ for a can and 10¢ for a bottle.

	Refund per Item (\$)	Number of Items	Money Raised (\$)
Can	0.05	c	$0.05c$
Bottle	0.10	b	$0.10b$
Total		2000	140

b) The school collected 1200 cans and 800 bottles. Use the linear system to verify these numbers.