



How are the numbers in the first column determined? [They are possible numbers of tickets Shawna could buy.] **How are the numbers in the second column determined?** [The number in the first column is multiplied by the cost of each ticket.]

Shawna saw a pattern: For each ticket, the total cost increased by \$4.

She wrote an algebraic expression to show the relationship between the number of tickets and the total cost.

The total cost of tickets for any number of friends can be represented by the algebraic expression $4 \times t$.

How does $4 \times t$ represent the total cost of the tickets? [It shows that to find the total cost of the tickets, take the cost of 1 ticket, \$4, and multiply it by the number of tickets, represented by t .]

Prevent Misconceptions

Some students may write an expression that describes the pattern they see in the second column of the table: $t + 4$. Use questioning. *If I replace t with 2 for 2 tickets, what is the value of the expression?* [6] *Is this the cost in dollars of 2 tickets?* [No; that cost is \$8.]

Shawna made a table.

Number of Tickets	Total Cost (in dollars)
2	8
3	12
4	16
5	20
t	$4 \times t$

+4
+4
+4

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Guided Practice



Formative Assessment

Remind students that addition and subtraction have an inverse relationship as they complete the Guided Practice exercises.

Exercise

Error Intervention

If students are having difficulty finding Megan's age, **then** say: *If you know Travis's age is 14, how can you find Megan's age?* [Subtract 6 from 14.] *Remember, when you don't know a value in the expression but you know the answer, you should do the opposite operation to find the value of the variable.*

Reteaching For another example and more practice, assign Reteaching Set B on p. 166.

Guided Practice*

Do you know HOW?

- Megan and Travis have the same birthday, but Travis is 6 years older. In the table, m is Megan's age and $m + 6$ is Travis's age. Complete the table.

m	3	5		8
$m + 6$				14

9 11

Do you UNDERSTAND?

- When Megan was 5 years old, how old was Travis?
11
- What was Megan's age when Travis was 14?
8
- Writing to Explain** If you know Travis's age, how can you find Megan's age?
You can subtract 6 from Travis's age.

Independent Practice

In 5 through 19, evaluate each expression for $n = 5$ and $n = 2$.

- $\frac{40}{n}$
8; 20
- $4.5 + n$
9.5; 6.5
- $n \times 16$
80; 32
- $50 - n$
45; 48
- $12n$
60; 24
- $\frac{30}{n}$
6; 15
- $8.6 + n$
13.6; 10.6
- $9n$
45; 18
- $36 - n$
31; 34
- $8 \times n$
40; 16
- $\frac{10}{n}$
2; 5
- $3n$
15; 6
- $n + 5$
10; 7
- $7 - n$
2; 5
- $\frac{70}{n}$
14; 35

In 20 through 31, evaluate each expression for $n = 10$ and $n = 12$.

- $\frac{n}{2}$
5; 6
- $n + 4.9$
14.9; 16.9
- $18n$
180; 216
- $44.7 - n$
34.7; 32.7
- $n - 5$
5; 7
- $n + 6.2$
16.2; 18.2
- $10n$
100; 120
- $33.6 - n$
23.6; 21.6
- $\frac{60}{n}$
6; 5
- $3n$
30; 36
- $n - 8$
2; 4
- $n + 3.17$
13.17; 15.17

*For another example, see Set B on page 166.

Lesson 6-2

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Independent Practice

Remind students to rewrite the problem with the given value before they evaluate the expression. Use Exercise 6 as an example: $4.5 + 5 = 9.5$, and $4.5 + 2 = 6.5$.

See **Extensions** on page 167A.