

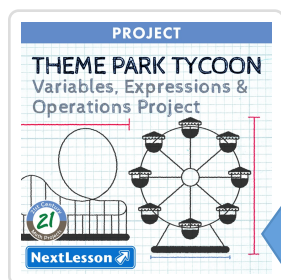
NextLesson 

Teacher Guide

NextLesson Projects are specifically designed to be reusable and compatible with implementing PBL in your classroom. Our Projects include all the Components, requiring deeper learning and in-depth inquiry while also incorporating student voice and choice, reflection and revision, and student collaboration.

Driving Question

Can you help organize the management of the theme park?



Description

Variables & Expressions go the Amusement Park in this engaging four assignment unit designed for Algebra or Pre-Algebra. Bring variables to life using a theme park motif. From operations to admissions, variables and expressions are the backbone of this analysis.

In "Theme Park Tycoon", students are asked to create algebraic expressions for different sentences using the theme park variables in the list.

In "Theme Park Calculations", students will use variables to write expressions for the different situations and then use the data from the table to evaluate them.

-- In "Theme Park Code", students will have to sift through expressions. Some of these expressions are meaningless, but some do make sense. They must look at the expressions, the variables and compare the meanings. Does the meaning match the expression? If it

Theme Park Tycoon -- Variables & Expressions Math Project

does, students will calculate the amount using the data table.

-- In "Theme Park Proposal", students will select the most important variables and expressions the park owners should consider as they decide whether to add another roller coaster. If they see items that need to be considered that are not on the list, add them! The park manager needs to be thoughtful in her analysis. Her bonus is on the line!

Duration

3- 5 Days

Teacher Preparation

- Due to the nature of this project, components are completed offline.
- **Teacher Rubric** and **Student Rubric**: To assist with assessing rubrics are provided. Students can take part in a self assessment which is often considered a valuable aspect of PBL learning.



Student Rubric



RUBRIC



Complete Project PDF & Answer Key

Standards Addressed

Please visit your account settings to select the standards you wish to use.

Common Core State Standards (Math)	
6.EE.A.2	Write, read, and evaluate expressions in which letters stand for numbers.
6.EE.A.2a	Write expressions that record operations with numbers and with letters standing for numbers. For example, record the calculation "Subtract y from 5" as $5 - y$.
6.EE.A.2b	Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient), view one or more parts of an expression as a single entity. For example, describe the expression $2(8 + 7)$ as a product of two factors and $(8 + 7)$ as both a single entity and a sum of two terms.
6.EE.A.2c	Evaluate expressions at specific values of their variables. Include expressions that arise from contexts used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the proper order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.
6.EE.B.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
7.EE.B.4	Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
Content.HSA-SSE.A.1	Interpret expressions that represent a quantity in terms of its context.
MP1	Make sense of problems and persevere in solving them.

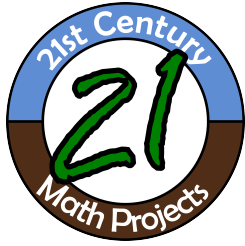
Theme Park Tycoon -- Variables & Expressions Math Project

MP2	Reason abstractly and quantitatively.
MP4	Model with mathematics.
MP7	Look for and make use of structure.

SAMPLE

SAMPLE





THEME PARK TYCOON

Ideal Unit: Variables & Expressions

Time Range: 2-3 Days

Supplies: Pencil & Paper

Topics of Focus:

- Translating Verbal & Algebraic Expressions
- Order of Operations

Driving Question "Can you help organize the management of a theme park?"

Culminating Experience Propose a new theme park

Common Core Alignment:

6.EE.2	Write, read, and evaluate expressions in which letters stand for numbers.
6.EE.2c	Evaluate expressions at specific values of variables. Include expressions that arise from formulas used in real-world problems.
6.EE.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
7.EE.4	Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
A-SSE.1	Interpret expressions that represent a quantity in terms of its context.★

Procedures:

A.) In "Theme Park Tycoon", students will use variables to create algebraic expressions for different sentences using the theme park variables in the chart.

Before the assignment as a whole group, have students brainstorm variables or quantities associated with an amusement park. Group variables into categories (costs for those attending, number of people in park, number of rides, etc.). This can be done as a whole group or several small ones.

B.) In "Theme Park Calculator", students will use variables to write expressions for the different situations and then use the expressions to evaluate them.

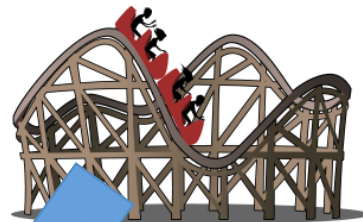
C.) In "Theme Park Code", students will have to sift through expressions. Some of these expressions are meaningless, but some do make sense. They must look at the expressions and the variables and compare the meanings. Does the meaning match the expression? If it does, students will calculate the amount using the data table.

D.) In "Theme Park Proposal", students will select the most important variables and expressions the park owners should consider as they decide whether to add another roller coaster. If there are items that need to be considered that are not on the data table, add them! The park manager needs to be thoughtful in her analysis – her bonus is on the line!

* Aspects of the project can be completed independently. The entire project does not need to be completed to have a great learning experience, though it is suggested because it will best scaffold the skills and context.

THEME PARK TYCOON

(VARIABLES EDITION)



Name _____ Date _____

Josie is the new manager of a theme park – *Fun Time Awesome Place*. Unfortunately, *Fun Time Awesome Place* is considered the thirteenth best amusement park in the Midwest and she has to turn it around! One of her duties is to collect and analyze data to determine if the park is doing financially and figure out which rides are the most efficient. Today she has the job to develop math expressions to save a lot of time and energy.

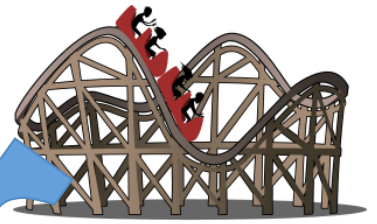
To start things off, the following variables have been defined:

THEME PARK VARIABLES	
EMPLOYEES	
F	# of female employees
E	# of male employees
VISITORS	
M	# of men over age 18 visiting park on single day
W	# of women over age 18 visiting park on single day
Y	# of youth age 18 and under visiting park on single day
ADMISSIONS	
A	adult ticket price for single day pass
T	youth ticket price for single day pass
DAYS OF OPERATION	
N = how many days the park is open in a season	

Use the variables to write expressions for the following scenarios:

- The total number of people visiting the park on a given day.
- The total number of people in the park on a given day.
- The total amount of money the amusement park collects from tickets on a given day if all visitors pay for a single-day pass for their respective age groups.
- The number of people who ride roller coasters if $\frac{3}{5}$ of all visitors ride roller coasters on a given day.
- The number of visitors over age 18 who ride roller coasters during the park's season if $\frac{1}{4}$ of all visitors ride roller coasters on a given day.

THEME PARK CALCULATIONS



Name _____ Date _____

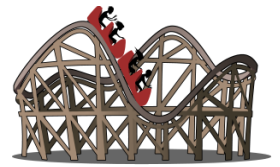
Now that Josie can write correct expressions, it's time to put that knowledge to use. Josie is now expected to deliver some actual numbers! It is a great thing she's good at math because her boss would like to give her a bonus after she delivers the results.

After a few days of collection, hard data has been recorded in regards to theme park operations and roller coaster rides. This data will be helpful when trying to make practical use of your expressions. (NOTE: there are more variables dealing with Ride & Park Logistics)

THEME PARK: DATA WORKSHEET

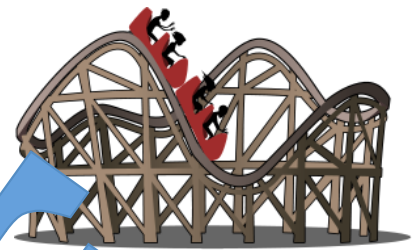
EMPLOYEES		
F	# of female employees	1000 employees/day
E	# of male employees	800 employees/day
VISITORS		
M	# of men over age 18 visiting park each day	3000 men/day
W	# of women over age 18 visiting park each day	4000 women/day
Y	# of youth age 18 & under visiting park each day	9000 youth/day
ADMISSIONS COST		
A	adult ticket price for single day pass	\$30/day
T	youth ticket price for single day pass	\$7/day
RIDE LOGISTICS		
K	# of roller coasters in the park	2 roller coasters/park
D	duration of roller coaster ride	3 minutes/ride
U	time to load and unload passengers from a roller coaster	1 minute/ride
P	maximum number of passengers on a roller coaster ride	36 passengers/ride
C	number of cars on a roller coaster	9 cars/train
Z	# of miles traveled per roller coaster ride	1.6 miles/roller coaster ride
PARK LOGISTICS		
S	# days park is open in a season	190 days/season
H	# of hours the park is open each day	12 hours/day

Use the variables to write expressions for the following situations. Then use the data from the table to calculate the answers.



1. The number of passengers in each car of a roller coaster assuming _____ capacity.
2. The total amount of money made from youth visitors to the park on _____ a day.
3. The maximum number of people who can ride a roller coaster in one hour. (Remember to include load & unload time and units)
4. The total number of people who can ride one roller coaster in one day during operating hours. (Consider your answer to #3 for _____)
5. The total distance a roller coaster travels in a single day.
6. The total amount of money made from admissions in a single day.

THEME PARK CODE



Name _____ Date _____

As Josie was cleaning out her new desk, she came across expressions written by the previous manager. What a relief! Some of the work is done for her... or is it? As she looks closer, she realizes some of these expressions are just wrong! They don't calculate what she's supposed to. No wonder the old manager was fired. But still there might be something useful. And Josie thinks it's worth it to figure out what's right and what's wrong.

Some of these expressions are meaningless, but some do make sense. Look at the expressions and variables and compare the meanings. Does the meaning make sense for the expression? If it does, calculate the amount using the data table.

If the expression and meaning are not correct, explain why it does not work.

Expression	Meaning	Is this correct?	If so, what would be the value? If not, why does it not work?
SH	# of hours open in a season		
$(D+U)/60$	# of times you can ride one coaster in a day		
$D + U$	Time from start of ride to start of the next ride		
$A+T+M+W+Y$	The number of tickets sold in a day		
KZ	Miles traveled by roller coasters in the park during 1 hour		
$A - T$	Difference in adult and youth ticket prices		
CK	Number of cars on all roller coasters		
Y/K	Youth per roller coaster		
FE	# of employees per day		
SMW	The # of adults in the park in 1 year		

THEME PARK PROPOSAL



Name _____ Date _____

The owners of *Fun Time Awesome Place* are considering whether to build an additional roller coaster and they are looking to Josie to make that decision! They want a paragraph proposal on their desk by the afternoon!

Select the most important variables and expressions the park owners should consider as they decide whether to add another roller coaster. If there are items that need to be considered that are not on the data table, add them! Josie needs to be thoughtful in her analysis – her bonus is on the line!

SAMPLE

THEME PARK



Josie is the new math teacher at the park, Tim's Awesome Place. Unfortunately, Tim's Awesome Place is the worst amusement park in the Midwest and she has to turn it around! One of her first tasks is to analyze data to determine how the park is doing financially and figure out which rides are the most efficient. Today she has the task to write math expressions to save a lot of time and energy.

To start things off, the following variables have been defined:

THEME PARK VARIABLES	
EMPLOYEES	
F	# of female employees
E	# of male employees
VISITORS	
M	# of men over age 18 visiting park on single day
W	# of women over age 18 visiting park on single day
Y	# of youth under age 18 visiting park on single day
ADMISSIONS	
A	adult ticket price for single day pass
T	youth ticket price for single day pass
DAILY OPERATION	
N	number of people in a season

Use the variables to write expressions for the following scenarios:

- The total number of people visiting the park on a given day. $M + W + Y$
- The total number of people in the park on a given day. $M + W + Y + F + E$
- The amount of money the amusement park collects from tickets on a given day if all visitors pay for a single-day pass in their respective age groups.
 $A(M + W) + YT$
- The number of people who ride roller coasters if $\frac{3}{5}$ of all visitors ride roller coasters on a given day.
 $(\frac{3}{5})(M + W + Y)$
- The number of visitors over age 18 who ride roller coasters during the park's season if $\frac{1}{4}$ of visitors ride roller coasters on a given day. $\frac{1}{4}N(M + W)$

THEME PARK CALCULATIONS

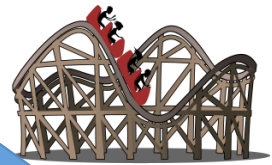


Now that Josie can write correct expressions, it's time to put that skill to use. She is now expected to deliver some actual numbers! It is a great thing to be good at math because her boss would like to give her a bonus after she delivers the results.

After a few days of collection, hard data has been recorded in regards to theme park operations and roller coaster rides. This data will be helpful when trying to make proper use of our expressions. (NOTE: there are more variables dealing with Ride & Park Logistics)

THEME PARK: THE WORLD		
EMPLOYEES		
F	# of female employees	1000 employees/day
E	# of male employees	800 employees/day
VISITORS		
M	# of men over age 18 visiting park on a single day	3000 men/day
W	# of women over age 18 visiting park on a single day	4000 women/day
Y	# of youth age 18 & under visiting park on a single day	9000 youth/day
ADMISSIONS COST		
A	adult ticket price for single day pass	\$30/day
T	youth ticket price for single day pass	\$7/day
RIDE LOGISTICS		
K	# of roller coasters in the park	2 roller coasters/park
D	duration of roller coaster ride	3 minutes/ride
U	time to load and unload passengers from a roller coaster	1 minute/ride
P	maximum number of passengers on a roller coaster ride	36 passengers/ride
C	number of cars on a roller coaster	9 cars/train
Z	length of roller coaster ride	1.6 miles/roller coaster ride
PARK LOGISTICS		
S	# days park is open in a season	190 days/season
H	# of hours park is open each day	12 hours/day

Use the variables to write expressions for the following situations.
Then use the data from the table to calculate the answers.



- The number of passengers in each car of a roller coaster assuming full capacity.

$$P / C = 36 / 9 = 4 \text{ passengers in each car}$$

- The total amount of money made from youth visitors to the park on a given day.

$$YT = (9000)(7) = \$63000$$

- The maximum number of people who can ride a roller coaster in one hour. (Remember to include load & unload time and units)

$$(60 / (D + U)) * P = (60 / (3+1)) * (36) = 15 * 36 = 540 \text{ passengers in an hour}$$

- The total number of people who can ride a roller coaster in one day during operating hours. (Consider your answer to #3 for help)

$$(60 / (D + U)) * P * H$$

$$(60 / (3+1)) * (36) * (12) = 15 * 36 * 12 = 6480 \text{ passengers in a day}$$

- The total distance a roller coaster travels in a single day.

$$(60 / (D + U)) * H * Z = (60 / (3+1)) * 12 * 1.6 = 15 * 12 * 1.6 = 288 \text{ miles}$$

- The total amount of money expected to make from admissions in a single day.

$$(M+W)*A +$$

$$7000 * 30 + 9000 * 7 = 210,000 + 63,000 = \$273,000$$

THEME PARK CODE

As Josie was cleaning out her new desk, she came across expressions written by the previous manager. What a relief! Some of the work is done for her... or is it? As she looks closer she realizes some of these expressions are just wrong! They don't calculate what they're supposed to. No wonder the old manager was fired. But still there might be something useful and Josie thinks it's worth it to figure out what's right and what's wrong.

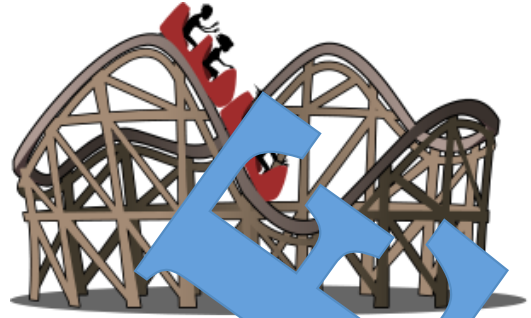


Some of these expressions are meaningless, but some do make sense. Look at the expressions and variables and compare the meanings. Does the meaning match the expression? If so, calculate the amount using the data table.

If the expression and meaning are not correct, explain why it does not work.

Expression	Meaning	Is this correct?	If so, what would be the value? If not, why does it not work?
SH	# of hours open in a season	Yes	$190 * 12 = 2280$
$(D+U)/60$	# of times you can ride one coaster in one day	No	It would need to be $60/(D+U) * H$
$D + U$	Time from start of one ride to the next ride	Yes	$3+1$
$A+T+M+W+Y$	The number of tickets sold in a day	No	Employees do not need to buy tickets
KZ	Miles traveled on all coasters in the park during 1 ride	Yes	$2 * 1.6 = 3.2$ miles
$A - T$	Difference in adult and youth ticket prices	Yes	$30 - 7 = \$23$
CK	Total number of cars on all roller coasters	Yes	$9 * 2 = 18$ cars
Y/K	Youth per roller coaster	No	There are no variables to determine how many youths are on each ride.
FE	# of employees per day	No	This would be added, not multiplied.
SMW	The # of adults in the park in 1 year	No	This does not include visitors

THEME PARK PROPOSAL



The owners of *Fun Time Awesome Place* are considering whether to build an additional roller coaster and they are looking to Josie to make that decision! They want a two paragraph proposal on their desk by the afternoon!

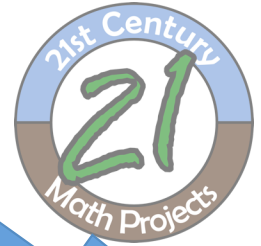
Select the most important variables and expressions the park owners should consider as they decide whether to add another roller coaster. If there are items that need to be considered that are not on the data table, add them! Josie needs to be thoughtful in her analysis -- *the line* is on the line!

Answers will vary. Students may want to know other variables such as wait time for lines, etc.

SAMPLE

THEME PARK TYCOON

Rubric



Standards		Exemplary	Proficient	Developing
6.EE.A.2c	evaluate expressions at specific values of their variables			
6.EE.B.6	use variables to represent numbers when solving a real-world or mathematical problem			
	write expressions when solving a real-world or mathematical problem			
Math Processes		Exemplary	Proficient	Developing
Skills & Mechanics	<i>accurately performs calculations</i>			
	<i>demonstrates fluency with mathematical skills and processes</i>			
Applications	<i>accurately interpret and addresses them with appropriate skills</i>			
	<i>can articulate the meaning of calculations in the context of the problems.</i>			
Use of Evidence & Analysis	<i>can determine which appropriate answers a question</i>			
	<i>uses mathematical outcomes to support their conclusions</i>			

Comments

Step 1

Theme Park Tycoon (Variables Edition)

WARMUP: Have students brainstorm variables or quantities associated with an amusement park. Group variables into categories (costs for those attending, number of people, etc., number of rides, etc.). This can be done as a large group or several small ones.

*Provide students with **Theme Park Tycoon** and ask them to write algebraic expressions for each sentence using the variables in the chart. To make sure you are using properties such as commutative, distributive, etc. Students can check their expressions with easy to work with values.*

Given the complexity of this sort of task, it may be best for students to work with partners.



Josie is the new manager of the theme park -- Fun Time Awesome Place. Unfortunately, Fun Time Awesome Place is considered the thirteenth best amusement park in the midwest. She has to turn it around! One of her duties is to analyze data to determine how the park is doing financially and figure out which rides are the most efficient. Today she has the task to develop math expressions to save a lot of time and energy.

To start things off, the following variables have been defined:

Theme Park Variables

Theme Park Tycoon -- Variables & Expressions Math Project

Employees	
F	# of female employees
E	# of male employees
Visitors	
M	# of men over age 18 visiting park on single day
W	# of women over age 18 visiting park on single day
Y	# of youth age 18 & under visiting park on single day
Admissions	
A	adult ticket price for single day pass
T	youth ticket price for single day pass
Days of Operation	
	number of days park is open in a season

1.

Use the variables to write expressions for the following scenarios:

2

Theme Park Tycoon -- Variables & Expressions Math Project

The total number of people visiting the park on a given day.

$$M + W + Y$$

2.

The total number of people in the park on a given day.

$$M + W + Y + F + E$$

3.

The amount of money the amusement park collects from tickets on a given day if all visitors pay for a single-day pass for their respective age groups.

$$A(M+W) + YT$$

4.

The number of people who ride roller coasters if $\frac{3}{5}$ of all visitors ride roller coasters on a given day.

$$\left(\frac{3}{5}\right)(M+W+Y)$$

5.

The number of visitors over age 18 who ride roller coasters during the park's season if $\frac{1}{4}$ of visitors ride roller coasters on a given day.

$$\frac{1}{4}N(M+W)$$

SAMPLE

SAMPLE

Step 2

Theme Park Calculations

This can be a complex task and may work well for students to work with partners or small groups.



Now that Josie can write correct expressions, it's time to use that skill to use. She is now expected to deliver some accurate numbers. It is a great thing she's good at math because the boss would love to give her a bonus after she delivers the results.

After a few days of collecting data has been recorded in regards to theme park operations and roller coaster rides. This data will be helpful when trying to make mathematical use of expressions. (NOTE: there are more variables dealing with Ride & Park Logistics)

Theme Park Data World

Variable	Description	Data
F	# of female employees	1,000 employees/day
E	# of male employees	800 employees/day
M	# of men over age 18 visiting park on single day	3,000 men/day
W	# of women over age 18 visiting park on single day	4,000 women/day

Theme Park Tycoon -- Variables & Expressions Math Project

Y	# of youth age 18 & under visiting park on single day	9,000 youth/day
A	adult ticket price for single day pass	\$30/day
T	youth ticket price for single day pass	\$7/day
K	# of roller coasters in park	2 roller coasters/park
D	duration of roller coaster ride	3 minutes/ride
U	time to load and unload passengers from a roller coaster	1 minute/ride
P	maximum number of passengers on a roller coaster ride	36 passengers/ride
C	number of cars on a roller coaster	9 cars/train
Z	miles traveled per roller coaster ride	1.6 miles/roller coaster ride
S	# days park is open in a season	190 days/season
	# of hours the park is open each day	12 hours/day

1.

2

Theme Park Tycoon -- Variables & Expressions Math Project

Use the variables to write expressions for the following situations. Then use the data from the table to calculate the answers.

The number of passengers in each car of a roller coaster assuming full capacity.

$$P / C \quad 36 / 9 = 4 \text{ passengers in each car}$$

2.

The total amount of money made from youth tickets to the park in one day.

$$YT = (9000)(7) = \$63000$$

3.

The maximum number of people who can ride a roller coaster in one hour. (Remember to include load & unload time)

$$(60 / (D + U)) * P \quad (60 / (3+1)) * (36) = 15 * 36 = 540 \text{ passengers in a hour}$$

4.

The total number of people who can ride one roller coaster in one day during operating hours. (Consider your answer to #3 for help)

$$(60 / (D + U)) * P * H, (60 / (3+1)) * (36) * (12) = 15 * 36 * 12 = 6480 \text{ passengers in a day}$$

5.

The total distance a roller coaster travels in a single day.

Theme Park Tycoon -- Variables & Expressions Math Project

$$(60(D + U)) * H * Z \quad (60 / (3+1)) * (12) * (1.6) = 15 * 12 * 1.6 = 288 \text{ miles}$$

6.

The total amount of money expected to make from admissions in a single day is

$$(M+W)*A + Y*T, \quad 7000 * 30 + 9000 * 7 = 210,000 + 63,000 = \$273,000$$

SAMPLE

Step 3

Theme Park Code

Given the complexity of this task, it may work well to have students work in pairs. It can also work well to do a couple as an example and review them together at the end.

Students will need to review the variables and data from the previous step to complete this assignment.



As Josie was cleaning out her new desk she came across expressions written by the previous manager. What a relief? Some of the work is done for her... or is it? As she looks at the work she realizes some of these expressions are just wrong! They don't calculate what they're supposed to. No wonder the manager was confused but still there might be something useful and she thinks it's worth it to figure out what's right and what's wrong.

Some of the expressions are meaningless, but some do make sense. Looking at the expressions, identify the variables and compare the meanings. Does the meaning match the expression? If it does, calculate the amount using the data table.

1.

If the expression and meaning are not correct, explain why it does not work.

	Meaning	Is this correct?	If so, what would be the value? If not, why does it not work?
SH	# of hours open in a season	Yes	$190 * 12 = 2280$

Theme Park Tycoon -- Variables & Expressions Math Project

$(D+U)/60$	# of times you can ride one coaster in one day	No	<i>It would need to be $60/(D+U) * H$</i>
$D+U$	Time from start of a ride to the start of the next ride	Yes	$3+1$
$A+T+M+W+Y$	The number of tickets sold in one day	No	<i>employees do not need to buy tickets</i>
KZ	Miles traveled by all roller coasters in the park during 1 ride	Yes	$2*1.6 = 3.2 \text{ miles}$
$A - T$	Difference between adult and youth ticket prices	Yes	$30-7 = \$23$
CK	Total number of cars on all roller coasters	Yes	$9*2 = 18 \text{ cars}$
Y/K	Number of roller coasters	No	<i>This would be added, not multiplied.</i>
	# of employees per day	No	<i>This would be added, not multiplied.</i>
SMW	The # of adults in the park in 1 year	No	<i>This does not include visitors</i>

SAMPLE

Step 4

Theme Park Proposal

This can be done individually or with partners.



The owners of Fun Time Awesome Park are considering whether to build an additional roller coaster and they are asking to Josie to make that decision! They want a two paragraph proposal on their desk by the afternoon!

Select the most important variables and expressions the park owners should consider as they decide whether to add another roller coaster. If there are items that need to be considered that are not on the data table, add them! Josie needs to be thoughtful in her analysis -- her bonus is on the line!

1.

Complete your proposal in the space below.

Answers will vary. Students may want to know other variables such as wait time for lines etc.

SAMPLE

SAMPLE

Step 5

Critique

Suggested time for Step: 15-30 minutes.

You may ask students to review a Theme Park Proposal of another student and record their thoughts here.



1. What did you like about this proposal? Be specific.

Student responses should record at least two specific and positive pieces of feedback.

2. Does this proposal help answer the project's driving question? Explain how.

Students should explain how the proposal helps or does not help organize management of the project in appropriate detail.

Theme Park Tycoon -- Variables & Expressions Math Project

3.

Does this proposal convey information clearly? Explain how.

Student responses should explain any improvements or give examples of how information is conveyed.

4.

What could be done to improve the proposal? Be specific.

Students should record at least one piece of specific and constructive feedback.

SAMPLE

Step 6

Reflection

Suggested time for Step: 10-15 minutes.

Students could answer the reflection questions individually or with a partner or small group.

Alternatively they could provide their answers orally as part of a class discussion.



Answer the questions below to reflect on your work.

1.

What did you learn about constructing expressions with variables?

Students should explain at least one thing they have learned in relation to this project.

2.

What problems did you come across and how did you tackle them?

Students should demonstrate the ability to reflect on problems and analyze their problem solving solutions.

3.

What strategies did you use to manage your time? Could you have improved any of these?

Students should give at least one strategy and explain any improvements.

4.

If I did this project over, what would I do?

Students should demonstrate the ability to reflect on their work and iterate.

SAMPLE