3.2

Writing Expressions

Key Vocabulary

Algebraic Expression
Coefficient
Constant
Term
Evaluate

Do Now

Identify the terms, coefficients, and constants in the expression.

1) $2m^2 + 15 + 5p^2$

Terms: _____

Coefficients:_____

Constants:_____

2) $5c^2 + 7d + \frac{1}{3}e^2$

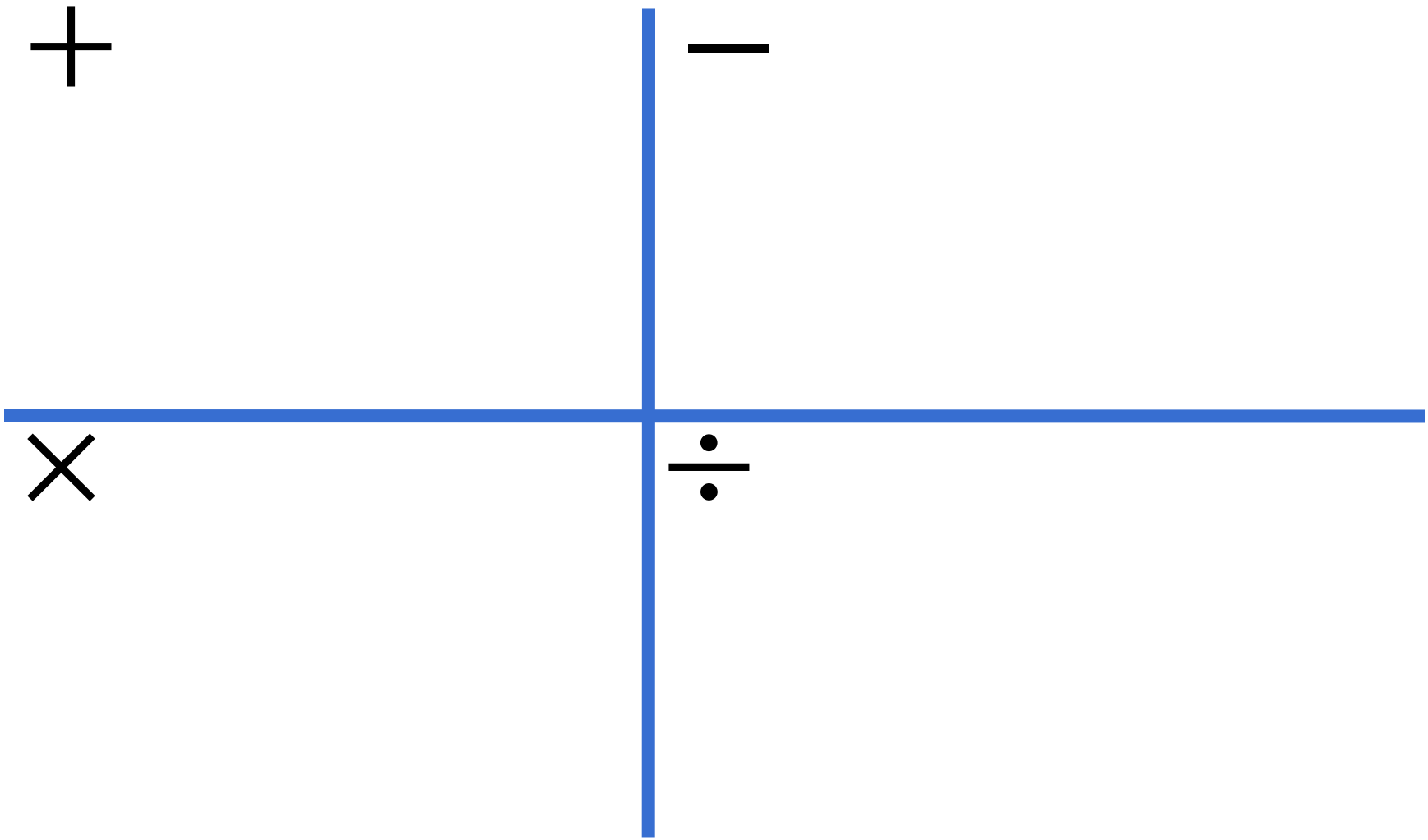
Terms: _____

Coefficients:_____

Constants:_____

What's an expression?

Key Words



Translating variable expressions

1) Ten more than a number

2) The difference of 3 an number

3) The product of 7 and a number

4) The quotient of a number and 6

5) The sum of -8 and a number

6) Nine less than a number

Translating variable expressions

7) $10t$

8) $n + 3.2$

9) $x - 6$

10) $\frac{y}{20}$

Practice

Write the phrase as an expression.

1) the sum of 18 and 35

2) 6 times 50

3) 25 less than a number b

4) a number x divided by 4

5) the total of a number t and 11

6) 100 decreased by a number k

Practice

Write the phrase as an expression.

1) the sum of 18 and 35

2) 6 times 50

3) 25 less than a number b

4) a number x divided by 4

5) the total of a number t and 11

6) 100 decreased by a number k

Practice

Work with a partner. Complete the table.

Variable	Phrase	Expression
n	4 more than a number	
m	the difference of a number and 3	
x	the sum of a number and 8	
p	10 less than a number	
n	7 units farther away	
t	8 minutes sooner	
w	12 minutes later	
y	a number increased by 9	

Practice

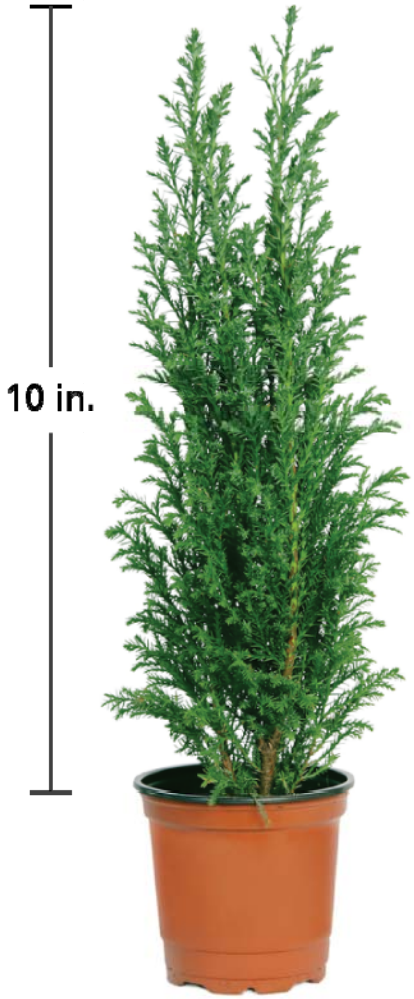
Work with a partner. Match each phrase with an expression.

the product of a number and 3	$n \div 3$
the quotient of 3 and a number	$4p$
4 times a number	$n \bullet 3$
a number divided by 3	$2m$
twice a number	$3 \div n$

Real-Life Application

The length of Interstate 90 from the West Coast to the East Coast is 153.5 miles more than 2 times the length of Interstate 15 from southern California to northern Montana. Let *m* be the length of Interstate 15. Which expression can you use to represent the length of Interstate 90?

Real-Life Application



You plant a cypress tree that is 10 inches tall. Each year, its height increases by 15 inches.

a. Make a table that shows the height of the tree for 4 years. Then write an expression for the height after *t* years.

b. What is the height after 9 years?

a)

Year, *t*	Height (inches)

b)