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### 1.7 Reading and Writing Equations

## Brainstorm:

Write an algebraic expression for these statements:

- Take any number
- Multiply it by 3
- Add 4

The answer is 13 . What is the original number?

Try this:

- Rena bought 3 CDs.
- Each CD costs the same amount.
- The total cost as $\$ 36$. What was the cost of 1 CD?

- We can write an equation for this situation.
- Let $p$ dollars represent the cost of 1 CD.
- Then, the cost of 3 CDs is $3 p$. This is equal to $\$ 36$.

We can write an equation to represent this situation:
$3 p=36$
$\qquad$
$\qquad$
$\qquad$

### 1.7 Reading and Writing Equations

An equation is a statement that two expressions are equal. An equation will ALWAYS have an "equal sign $=$ " in it!

Think $2 \times 6=12$ (The expression $2 \times 6$ is equal to the expression 12)
In algebra:
$3 x+1$ is an algebraic expression.
7 is an expression.
$3 x+1=7$ is an equation

## In words we write:

One more than triple a number is seven.

1. Choose a letter for the variable

2. Write an algebraic expression to represent the relationship.

$$
3 n+1
$$

3. Write an equals sign between the expression and the constant term.

$$
3 n+1=7
$$

| Eg. Four more than a number is $\mathbf{1 7}$ | Eg. A number divided by three is nine. |
| :--- | :--- |
| 1. Variable: x | 1. Variable: h |
| 2. Four more than the number: $\mathrm{x}+4$ | 2. h divided by $3: \mathrm{h} \div 3$ |
| 3. The equation is: $\mathrm{x}+4=17$ | 3. The equation: $\mathrm{h} \div 3=9$ |

Practice Together: p. 36 a-e
Homework: p. 36 ALL

