

DO NOW

1) Write an expression for the phrase:

4 times the difference of 6 and a number y .

2) A museum charges \$50 for an annual membership and then a reduced price of \$2 per ticket.

a) Write an expression to represent the situation.

b) Then find the total cost to join the museum and buy 9 tickets.

1.4

Writing Equations and Inequalities

Symbol	Meaning	Associated Words
=	is equal to	the same as
<	is less than	fewer than
>	is greater than	at most, no more than
\leq	is less than or equal to	more than
\geq	is greater than or equal to	at least, no less than

Write equations and inequalities

Verbal Sentence

Equation or Inequality

a. The difference of twice a number k and 8 is 12.

b. The product of 6 and a number n is at least 24.

c. A number y is no less than 5 and no more than 13.

Example

1. Write an equation or an inequality for the sentence
“The quotient of a number p and 12 is at least 30.”

Checking the solution

Check whether 3 is a solution of the equation or inequality.

Equation/Inequality	Substitute	Conclusion
a. $8 - 2x = 2$		
b. $4x - 5 = 6$		
c. $2z + 5 > 12$		
d. $5 + 3n \leq 20$		

Examples

Check whether the given number is a solution of the equation or inequality.

2. $9 - x = 4$; 5
3. $b + 5 < 15$; 7
4. $2n + 3 > 21$; 9