

Pg 27-28

9	not a solution	35	5
11	solution	37	8
13	not a solution	39	9
15	solution	41	21
27	not a solution	42	2
29	solution	45	5
31	solution	47	6
33	solution	49	D
		50	25

1.4 cont. Inequalities

Sept. 12, 2006

- Inequalities: a statement formed by placing an inequality symbol between two expressions.

* Must have an Inequality Sign.

Inequality	Meaning	Example
$<$	less than	$5 < 6$
$>$	greater than	$5 > 4$
\leq	less than or equal to	$5 \leq 5$ or $5 \leq 10$
\geq	greater than or equal to	$10 \geq 5$ or $10 \geq 10$

Check Let $x=4$

$$x+3 \geq 9 \rightarrow \text{exp.}$$

$$\underline{(4)}+3 \stackrel{?}{=} 9$$

$$7 \neq 9$$

False... 4 is not a solution

$$2x-1 < 8 \rightarrow \text{exp.}$$

$$\underline{2(4)}-1 < 8$$

$$8-1 < 8$$

$$7 < 8 \checkmark$$

True... 4 is a solution

Check n for $3n-4 \leq 8$

Start at $n=2$:

$$\begin{aligned} 3(2) - 4 &\leq 8 \\ 6 - 4 &\leq 8 \\ 2 &\leq 8 \quad \checkmark \quad \text{True!} \end{aligned}$$

try $n=3$

$$\begin{aligned} 3(3) - 4 &\leq 8 \\ 9 - 4 &\leq 8 \\ 5 &\leq 8 \quad \checkmark \quad \text{True!} \end{aligned}$$

try $n=4$:

$$\begin{aligned} 3(4) - 4 &\leq 8 \\ 12 - 4 &\leq 8 \\ 8 &\leq 8 \quad \checkmark \quad \text{True!} \end{aligned}$$

try $n=5$

$$\begin{aligned} 3(5) - 4 &\leq 8 \\ 15 - 4 &\leq 8 \\ 11 &\not\leq 8 \quad \text{False!} \end{aligned}$$

...

$$\underline{\underline{n \leq 4}}$$

... False!

Real Life Math:

* Cat: needs less than or equal to 500 cal. a day

* 2 Feedings

Does 250 cal. per feeding work?

$$(\# \text{ of feedings}) (\# \text{ of cal}) \leq 500$$

$$(2)(250) \leq 500$$

$$500 \leq 500 \checkmark$$

True... 250 cal. work!

O.T.L.: work done
in Class + Finished
if Needed Somewhere else.

O.T.L.

① Pg 27-29: 1-7(0); 17-25(0);
51-57(0); 61, 63;
65-91 (ALL)