Greater Than? -

© 2012 www.flickr.com/photos/marinacast

*A Solidify Understanding Task*

For each situation you are given a mathematical statement and two expressions beneath it.

1. Decide which of the two expressions is greater, if the expressions are equal, or if the relationship cannot be determined from the statement.
2. Write an equation or inequality that shows your answer.
3. Explain why your answer is correct.

Watch out—this gets tricky!

Example:

Statement: $x=8$

Which is greater? $x+5 or 3x+2$

Answer: $3x+2>x+5$ because if $x=8, 3x+2=26, x+5=13 and 26>13.$

Try it yourself:

1. Statement: x = 5

Which is greater? $2x-3 or 6$

1. Statement: $4x=0$

Which is greater? $1 or x$

1. Statement: $10-2x<6$

Which is greater? $x or 2$

1. Statement: *n* is an integer

Which is greater? $n or-n$

1. Statement: $5>4$

Which is greater? $5x or 4x$

1. Statement $x>y$

Which is greater? $x+a or y+a$

1. Statement: $5>4$

Which is greater? $\frac{5}{x } or \frac{4}{x}$

***x***

***y***

***z***

1. Statement:

Which is greater? $1 or yz$

1. Statement: Use the number line in #7 and $x<w<y$

Which is greater? $w or-y$

1. Statement: $0<x<10 and 0<y<12$

Which is greater? $x or y$

1. Statement: $x>0, y>0 and \frac{x}{y}>2$

Which is greater? $2y or x$