

MasterMath

Solving Inequalities

me _____
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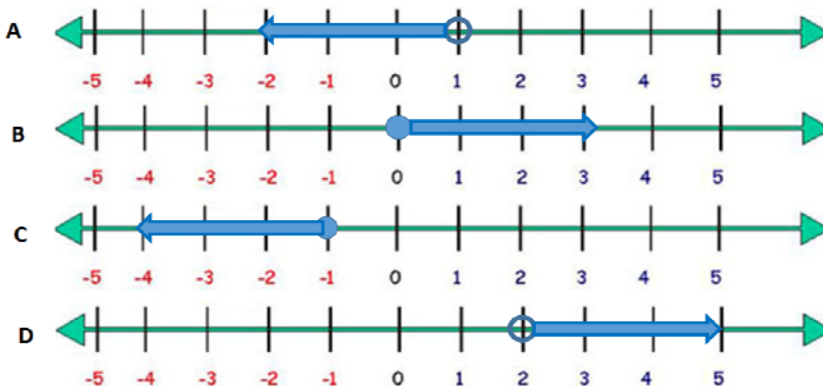
1. Solve these inequalities

Inequality	Solution
$16x > 32$	$x > 2$
$\frac{1}{2}x + 3 < 19$	$x < 32$
$6 - 2x > 30$	$x < -12$
$z - (-2) < 6$	$z > -12$
$15y > 60$	$y > 4$
$28 < -2x$	$-14 > x$
$66 + 4 > -2c$	$-35 < c$
$18x > 54$	$x > 3$
$-2(x + 2) > -6$	$x < 1$
$13z - 5 < 21$	$x < 2$
$\frac{7}{8}x \geq \frac{1}{8}$	$x \geq \frac{1}{5}$

Inequality	Solution
$-16z > 32$	$z < -2$
$x + 2x \neq 9$	$x \neq 3$
$85a > 85$	$a > 1$
$-4x < 16$	$x > -4$
$2x > \frac{1}{2}$	$x > \frac{1}{4}$
$39 < -3x$	$-13 > x$
$75 - z > 100$	$z < -25$
$9 - 2d \neq 15$	$d \neq -3$
$45 \leq 3x$	$15 \leq x$
$45 \leq -3x$	-15 is greater than or equal to x
$-45 < -3x$	$15 > x$

Translate these statements into Inequalities

- You can only keep fish you catch if they are longer than 12" $f > 12$
- To qualify for the Olympics, you need to have a time in the 400 meters that is less than 46.5 seconds. $q < 46.5$
- In order to ride the Crazy Cat ride at Busch Gardens, you need to be at least 49" tall. $h \geq 49$
- The local fire code says that this room can have a maximum of 45 people in it. $r \leq 45$
- Fred's mother will only tell us that she is older than 35. $m > 35$
- To lose weight, you need to eat less than a total of 1700 calories per day. $c < 1700$
- Which graph shows the solution to $2 - 2x > 0$?



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