

Warm Up 9/7

① Write down one goal for yourself for the first semester.

② Write down one goal for yourself for the first unit.

③ Solve for x

$$4x^2 + 9 = 73$$

$$-9 \quad -9$$

$$\frac{4x^2}{4} = \frac{64}{4}$$

$$x^2 = 16$$

$$x = \pm 4$$

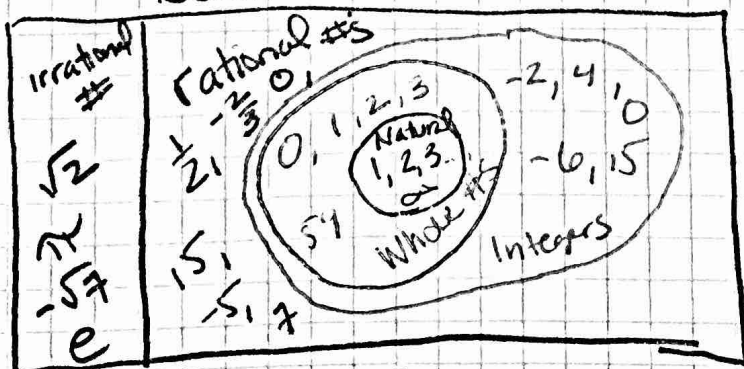
④ Rewrite in interval notation

$$-6 < x \leq 21$$

$$(-6, 21]$$

Goal: Be able to classify real #'s and review in tervals & inequalities

Notes: Real # system



ex/yt | Given $\{ -6, 15, \frac{2}{3}, \sqrt{7}, \pi, 0, 5 \}$

Natural: 5, 15

Whole: 0, 5, 15

Integers: -6, 0, 5, 15

Rational: $\frac{2}{3}, -6, 15, 5, 0$

Irrational: $\sqrt{7}, \pi$

Interval Notation: if a number is included

@ least
 $\leq x$

no more
 $\geq x$

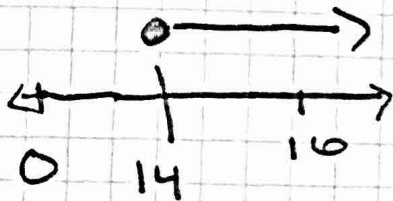
$[,]$

if it is not included

less than
 $x <$

greater than
 $x >$

ex) rewrite in words, inequalities +



unbound
interval

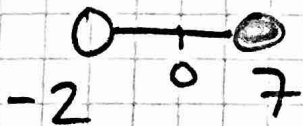
interval notation

words: x is at least 14 or
 x is greater than or equal
to 14

inequality $14 \leq x$

interval $[14, \infty)$

ex)



bound interval

x is greater than -2 or
less than or equal to 7

$-2 < x \leq 7$

$(-2, 7]$