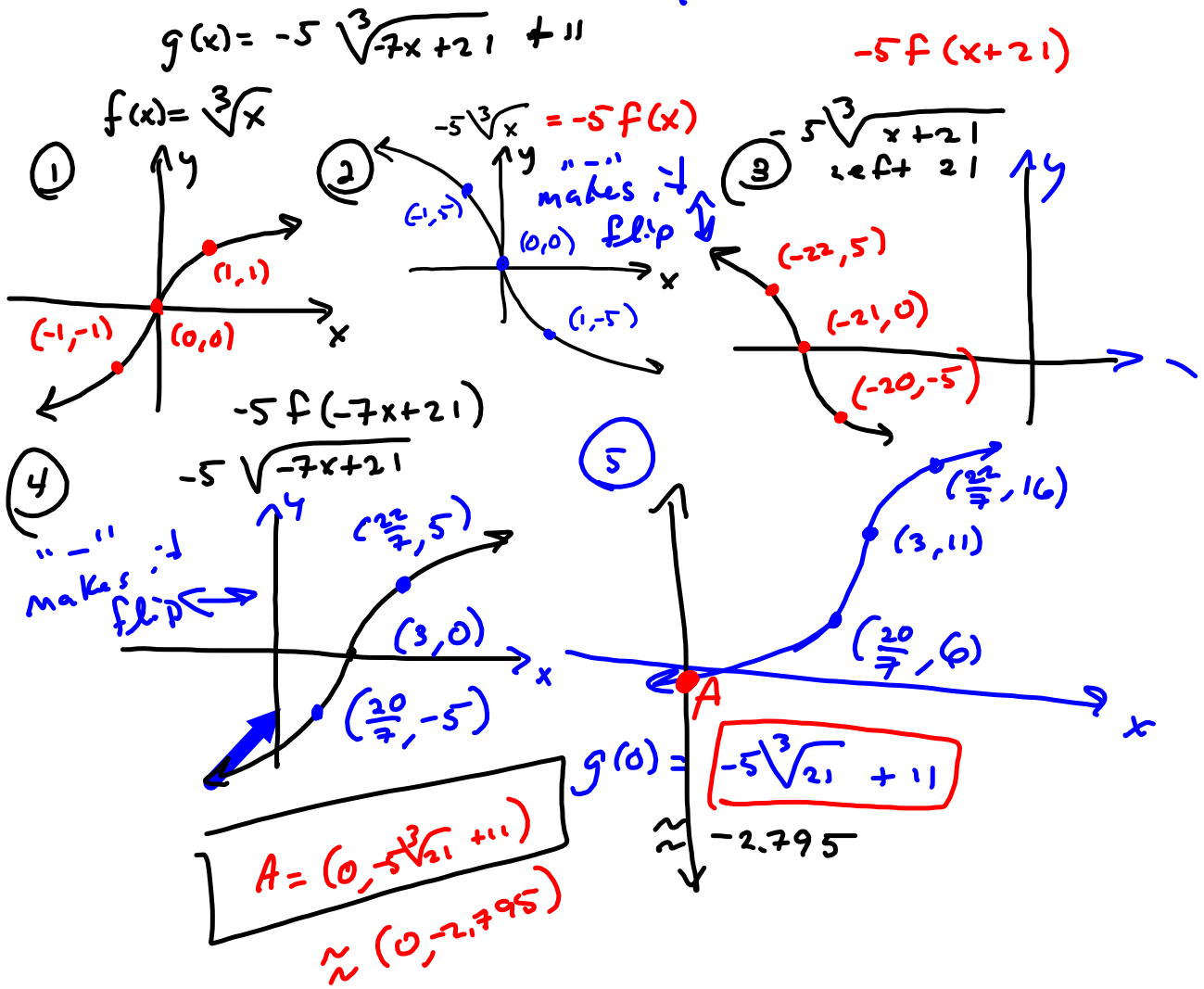
So all you clowns like Method 2, better.

I like Method 1, because I know what's coming in Trig.

METHOD 2



-5*21^(1/3) + 11

I added another little set of videos on that toughie $f(x)=\frac{x-4}{x-12}$, $g(x)=\sqrt{x+4}$ one.

Domain of $\frac{f}{g}$ & Domain of $f \circ g$ are biggies.

The template:

$$D\left(\frac{f}{g}\right)=\{x \mid f(x) \text{ is cool and } g(x) \text{ is cool and } g(x)\neq 0\}$$
$$=\{x \mid x\in D(f) \text{ and } x\in D(g) \text{ and } g(x)\neq 0\}$$

$$D(f\circ g)=\{x \mid g(x) \text{ is cool and } f(g(x)) \text{ is, too!}\}$$
$$=\{x \mid x\in D(g) \text{ and } g(x)\in D(f)\}$$

$\sqrt{x+4}$

$x+4\geq 0$

$x\geq -4$

$D(g)$

$=\{x \mid x\geq -4 \text{ and } \sqrt{x+4}\neq 12\}$

$\frac{x-4}{x-12}$ $x-12\neq 0$, $x\neq 12$, $D(f)$

Because we're finding $g(x)=\sqrt{x+4}$ to $f(x)$.

$D(f(x))=\{x \mid x\neq 12\}$

$D(f(g(x)))=\{x \mid g(x)\neq 12\}$

$=\{x \mid \sqrt{x+4}\neq 12\}$

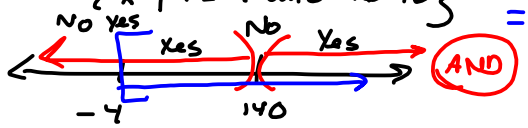
$\sqrt{x+4}\neq 12$

$x+4\neq 144$

$x\neq 140$

$=\{x \mid x\neq 140$

$\{x \mid x\geq -4 \text{ and } x\neq 140\}$

$=$ 

"And" means both gotta represent!

$)^2$ $(\ )^2$

$=\boxed{[-4, 140)\cup(140, \infty)}$

See Test Prep Videos for one from Fall '14 & one from Fall '15!

I love these!

Click on the Earth!!!