

1. The universal set of real numbers contains five subsets. Using the letters learned in class, place these subsets in order from smallest to largest.

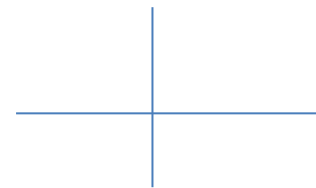
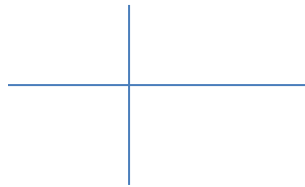
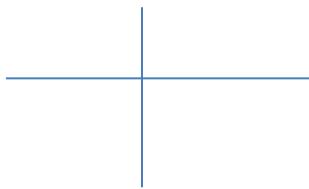
2. A function $f(x)$ consists of?

3. Sketch

$$y = 3$$

$$y = \sqrt{x-2}$$

$$y = -x^2 + 3$$



4. For functions $f(x) = x - 6$, $g(x) = \frac{1}{\sqrt{x+1}}$, $h(x) = x^2 - 9$, find these:

Dom $f(x)$

Dom $g(x)$

y-intercept of $f(x)$

x-intercepts (roots) of $h(x)$

$(g \circ f)(x)$

$\frac{f(x+h) - f(x)}{h}$ (simplified)