

Domain of Composition Functions

Name: _____

1. Find the composition function.
2. Find the domain of the **composition** function.
3. Find the domain of the **inside** function.
4. Combine the two domains. The final domain is the domain of the composition plus any additional restrictions from the inside function.

	Domain of Final Function	Domain of Inside Function	Domain of Composition Function
1	$(-\infty, \infty)$	$x \neq 2$	
2	$(-\infty, \infty)$	$x > 5$	
3	$x \neq 7$	$x \neq 10$	
4	$x > 0$	$x \neq 1$	
5	$x > 3$	$x > 6$	
6	$(-\infty, \infty)$	$x \neq 2$	
7	$x < 1$	$(-\infty, \infty)$	
8	$x \neq 2$	$x \neq 9$	
9	$x \neq 20$	$x > 4$	
10	$x > 0$	$x > 0$	

Domain of Composition Functions

Name: _____

1. Find the composition function.
2. Find the domain of the **composition** function.
3. Find the domain of the **inside** function.
4. Combine the two domains. The final domain is the domain of the composition plus any additional restrictions from the inside function.

	Domain of Final Function	Domain of Inside Function	Domain of Composition Function
1	$(-\infty, \infty)$	$x \neq 2$	$(-\infty, 2) \cup (2, \infty)$
2	$(-\infty, \infty)$	$x > 5$	$x > 5$
3	$x \neq 7$	$x \neq 10$	$(-\infty, 7) \cup (7, 10) \cup (10, \infty)$
4	$x > 0$	$x \neq 1$	$(0, 1) \cup (1, \infty)$
5	$x > 3$	$x > 6$	$x > 6$
6	$(-\infty, \infty)$	$x \neq 2$	$(-\infty, 2) \cup (2, \infty)$
7	$x < 1$	$(-\infty, \infty)$	$x < 1$
8	$x \neq 2$	$x \neq 9$	$(-\infty, 2) \cup (2, 9) \cup (9, \infty)$
9	$x \neq 20$	$x > 4$	$(4, 20) \cup (20, \infty)$
10	$x > 0$	$x > 0$	$x > 0$

