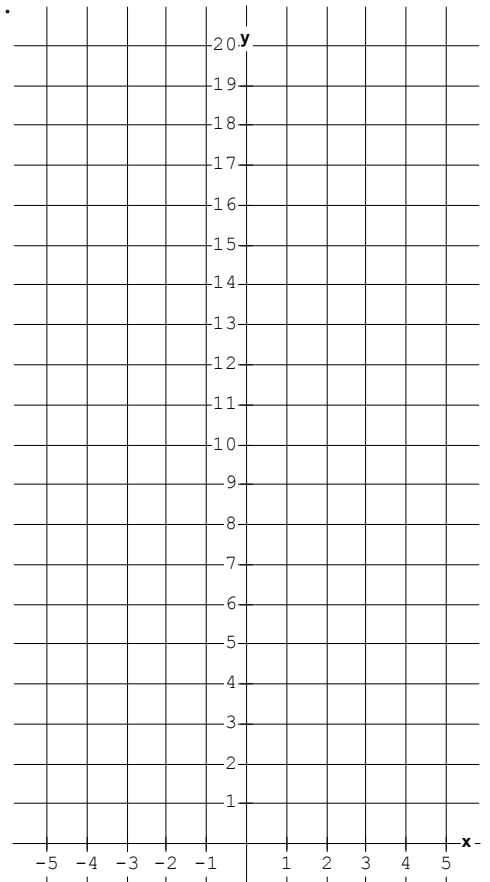


Graphing Exponential Functions

1. Using a table of values (no decimals), graph the function $y = 2^x$.

x	$y = 2^x$
4	
3	
2	
1	

x	$y = 2^x$
0	
-1	
-2	
-3	



2. For the function $y = 2^x$, state:

- a) domain
- b) range
- c) equation of the asymptote
- d) y-intercept e) x-intercept
- f) increasing or decreasing function?
- g) end behaviours
as $x \rightarrow -\infty$, $f(x) \rightarrow$ _____
as $x \rightarrow +\infty$, $f(x) \rightarrow$ _____

3. Using a table of values (no decimals), graph the functions $y = 3^x$ and $y = 5^x$ on grid above.

x	$y = 3^x$
4	
3	
2	
1	

x	$y = 3^x$
0	
-1	
-2	
-3	

x	$y = 5^x$
4	
3	
2	
1	

x	$y = 5^x$
0	
-1	
-2	
-3	

4. Discuss the similarities between the functions $y = 2^x$, $y = 3^x$ and $y = 5^x$.

5. Where would the graph of the function $y = 4^x$ be located?

6. Where would the graph of the function $y = 10^x$ be located?

