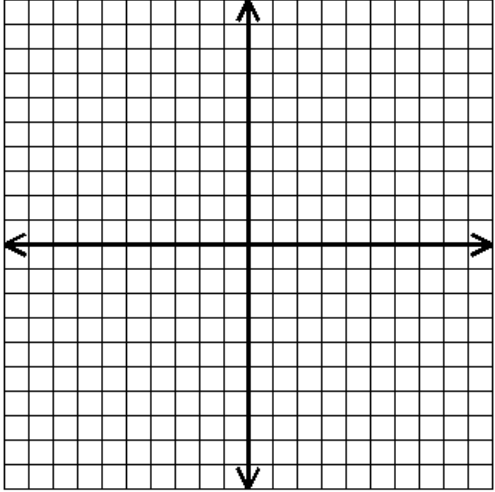


EXPONENTIAL FUNCTIONS

State whether the function is increasing or decreasing.

<p>1. $f(x) = 3^x$</p> <p>Increasing/Decreasing _____</p> <p>Asymptote: _____</p> <p>Domain: _____</p> <p>Range: _____</p>	<p>2. $f(x) = \left(\frac{1}{5}\right)^x$</p> <p>Increasing/Decreasing _____</p> <p>Asymptote: _____</p> <p>Domain: _____</p> <p>Range: _____</p>
<p>3. $f(x) = \left(\frac{3}{2}\right)^x$</p> <p>Increasing/Decreasing _____</p> <p>Asymptote: _____</p> <p>Domain: _____</p> <p>Range: _____</p>	<p>4. $f(x) = 0.6^x$</p> <p>Increasing/Decreasing _____</p> <p>Asymptote: _____</p> <p>Domain: _____</p> <p>Range: _____</p>

Complete the table of values and sketch the graph of the exponential function.

<p>5. $f(x) = \left(\frac{1}{3}\right)^x$</p> <p>Increasing/Decreasing _____</p> <p>Asymptote: _____</p> <p>Domain: _____</p> <p>Range: _____</p>	<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">x</th> <th style="padding: 5px;">y</th> </tr> </thead> <tbody> <tr><td style="padding: 5px;">-2</td><td style="padding: 5px;"></td></tr> <tr><td style="padding: 5px;">-1</td><td style="padding: 5px;"></td></tr> <tr><td style="padding: 5px;">0</td><td style="padding: 5px;"></td></tr> <tr><td style="padding: 5px;">1</td><td style="padding: 5px;"></td></tr> <tr><td style="padding: 5px;">2</td><td style="padding: 5px;"></td></tr> </tbody> </table>	x	y	-2		-1		0		1		2		
x	y													
-2														
-1														
0														
1														
2														

6. $f(x) = (3)^x$

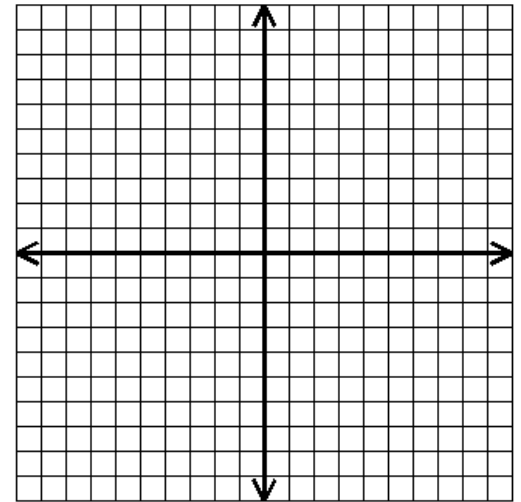
Increasing/Decreasing

Asymptote: _____

Domain: _____

Range: _____

x	y
-2	
-1	
0	
1	
2	



7. $f(x) = \left(\frac{1}{4}\right)^x$

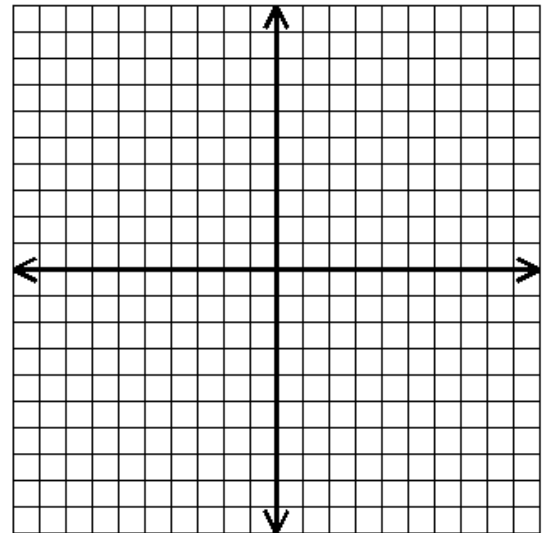
Increasing/Decreasing

Asymptote: _____

Domain: _____

Range: _____

x	y
-1	
0	
1	



8. $f(x) = (4)^x$

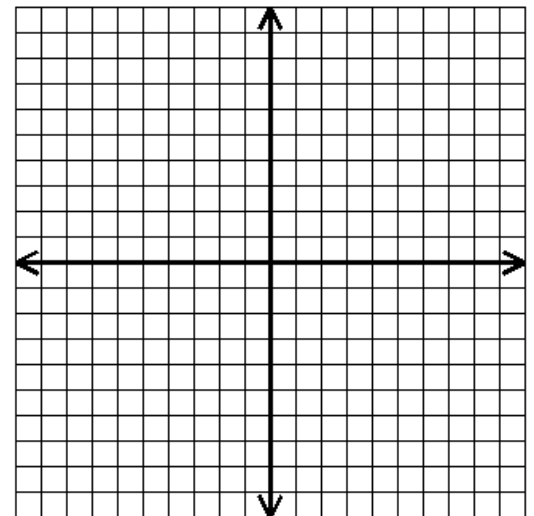
Increasing/Decreasing

Asymptote: _____

Domain: _____

Range: _____

x	y
-1	
0	
1	



Review.

9. Simplify the expression
 $(4x^2 + 5) - (3x - 2) + (x^2 + 8x)$.

10. Factor $2x^2 + 12x + 18$.

11. Factor $12x^2 - 24$.

12. Solve $2(x - 4) + 5 = 3x - 1$