You have 1hr 40min. Answer each non-graph question neatly on the line provided.

Name

1. (5 points) Simplify $2(3 + \frac{7}{8}) - \frac{1}{3}$.

3. (5 points) Evaluate $27^{-\frac{4}{3}}$.

1. _____

2. (5 points) Simplify $\left(\frac{2a^{-1}b}{a^2b^{-8}}\right)^4$ and eliminate negative exponents.

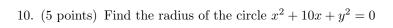
2.

3. _____

4.	(5 points)	Factor –	$5x^3 + 20x$	complete	ly.				
								4	
5.	(5 points)	Perform	the multip	lication $\frac{2}{3}$	$\frac{x^2-50}{x^2-16} \cdot \frac{3x+1}{x+5}$	$\frac{12}{5}$ and simp	olify.	4.	
5.	(5 points)	Perform	the multip	lication $\frac{2}{3}$	$\frac{x^2 - 50}{x^2 - 16} \cdot \frac{3x + 1}{x + 5}$	and simp	olify.	4.	

6. (5 points) Perform the addition $1 - \frac{x+1}{x+9}$ and simplify as one fraction.

7.	(5 points)	Find all solution x of $2x^2 = 32$	
			7
8.	(5 points)	Solve the equation $PV = nRT$ for R .	
			8
9.	(5 points)	Solve the inequality $x^2 + 4x - 5 < 0$. Express your answer using interval	notation.
			9



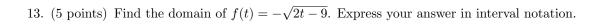
12. (5 points) Evaluate and simplify h(2a-1) when $h(x) = \frac{x^2+1}{2}$.

10. _____

11. (5 points) Find the y-intercept of the line through the points P(6,-6) and Q(8,-1).

11. _____

12. _____





14. (5 points) Use the graph of f (no pic here) to find the intervals on which f is decreasing.

14.

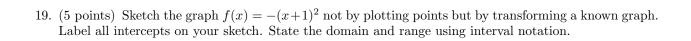
15. (5 points) Determine the net change of r between t = 4 and t = 8 when $r(t) = 4 - \frac{t}{4}$.

15. _____



17. (5 points) Evaluate
$$f^{-1}(-23)$$
 when $f(x) = 7 - 5x$.

18. (5 points) Sketch the graph y = |x + 10| - 3 not by plotting points but by transforming a known graph. Label all intercepts on your sketch. State the domain and range using interval notation.



20. (5 points) Sketch the graph
$$g(x) = x - |x|$$
 by making a table of values.