

Higher Education Ministry King Abdul-Aziz University Faculty of Science Department of Mathematics				First Midterm Exam Summer 2013 Math 110 - 30 Marks Time Allowed: 90 Minutes
Your Name		ID		A
1) Find the domain of $f(x) = \frac{x-7}{x^2-4}$.				
☐ a	$(7, \infty)$	☐ b	$(-\infty, \infty)$	
☐ c	$(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$	☐ d	$(-\infty, -2) \cup (2, \infty)$	
2) Find the range of $f(x) = x+4 $.				
☐ a	$(-4, \infty)$	☐ b	$(-\infty, \infty)$	☐ c $(0, \infty)$
				☐ d $[0, \infty)$
3) Solve $ 2x+11 =3$.				
☐ a	4 or 7	☐ b	-7 or -4	☐ c -4, or 7
				☐ d -7 or 4
4) Solve $-8 \leq 2x-4 \leq 10$.				
☐ a	$[-2, 7]$	☐ b	$(-2, 7)$	☐ c $[-2, 7)$
				☐ d $(-2, 7]$
5) Solve $x^2 - x - 2 \geq 0$.				
☐ a	$(-\infty, -1] \cup [2, \infty)$	☐ b	$(-\infty, -2) \cup (1, \infty)$	
☐ c	$(-\infty, -1) \cup (2, \infty)$	☐ d	$(-\infty, -2] \cup [1, \infty)$	
6) Find the domain of $f(x) = \sqrt{x^2-4}$.				
☐ a	$[-2, 2]$	☐ b	$(-2, 2)$	
☐ c	$(-\infty, -2) \cup (2, \infty)$	☐ d	$(-\infty, -2] \cup [2, \infty)$	
7) Solve $ 2x-3 \leq 9$.				
☐ a	$(-3, 6)$	☐ b	$[-3, 6]$	
☐ c	$(-\infty, -3) \cup (6, \infty)$	☐ d	$(-\infty, -3] \cup [6, \infty)$	
8) $ 3-\pi =$				
☐ a	$\pi-3$	☐ b	$3-\pi$	☐ c $-3-\pi$
				☐ d $3+\pi$
9) Solve $ 2x-3 > 9$.				
☐ a	$(-3, 6)$	☐ b	$[-3, 6]$	☐ c $(-\infty, -3) \cup (6, \infty)$
				☐ d $(-\infty, -3] \cup [6, \infty)$

10) Find the slope of the line through the points (3,4) and (-1,2).			
☐ a -1	☐ b 1	☐ c $-\frac{1}{2}$	☐ d $\frac{1}{2}$
11) Find the equation of the line through the points (3,4) and (-1,2).			
☐ a $-2y + x - 5 = 0$	☐ b $2y - x - 5 = 0$		
☐ c $2y + x - 5 = 0$	☐ d $2y + x - 5 = 0$		
12) Find the equation of the line through the point (-1,2) with slope $\frac{1}{2}$.			
☐ a $y = \frac{x}{2} + \frac{5}{2}$	☐ b $y = \frac{x}{2} - \frac{5}{2}$	☐ c $y = -\frac{x}{2} - \frac{5}{2}$	☐ d $y = -\frac{x}{2} + \frac{5}{2}$
13) If $f(x) = x^3$ and $g(x) = \sqrt[3]{x-2}$, then $(g \circ f)(x) =$			
☐ a $\sqrt[3]{2-x^3}$	☐ b $x-2$	☐ c $\sqrt[3]{x^3-2}$	☐ d $2-x$
14) Find the y-intercept of the line $3x + 2y - 1 = 0$.			
☐ a $\frac{1}{3}$	☐ b $-\frac{1}{3}$	☐ c $-\frac{1}{2}$	☐ d $\frac{1}{2}$
15) The equation for the line passes through (4,-1) and perpendicular to the line $2x - 3y - 3 = 0$ is			
☐ a $2x - 3y = 3$	☐ b $2x + 3y = 10$	☐ c $3x + 2y = -2$	☐ d $3x + 2y = 10$
16) Find the domain of $f(x) = x^2 - 4$.			
☐ a $(-2,2)$	☐ b $(-\infty, \infty)$	☐ c $[-2,2]$	☐ d $(-\infty, -2) \cup (-2, \infty)$
17) Find the domain of $f(x) = \sqrt{x} + \sqrt{x-1}$.			
☐ a $(1, \infty)$	☐ b $(-\infty, 1)$	☐ c $[1, \infty)$	☐ d $(-\infty, 1]$
18) The function $f(x) = 2x^6 + x^4 + 1$ is			
☐ a Even	☐ b Odd	☐ c Even and odd	☐ d Neither even nor odd
19) If $f(x) = x^2 - x + 3$ and $g(x) = -x$, then $(f - g)(x) =$			
☐ a $x + 3$	☐ b $x^2 - 2x + 3$	☐ c $x^2 + 3$	☐ d $(x^2 - x + 3)x$
20) If $f(x) = x^2 + 5x + 6$ and $g(x) = x + 2$, then $\left(\frac{f}{g}\right)(x) =$			
☐ a $x + 3$	☐ b $x - 3$	☐ c $x - 6$	☐ d $x + 6$

21) The function $f(x) = x^4$ is ☐ power ☐ trigonometric ☐ exponential ☐ polynomial
22) The irrational number is ☐ 3 ☐ $0.\bar{3}$ ☐ -3 ☐ π
23) If $f(x) = x^2 - 7$, then $\frac{f(x+h) - f(x)}{h} =$ ☐ $x + h$ ☐ $2x - h$ ☐ $2x + h^2$ ☐ $2x + h$
24) $(-1, 6] \setminus (2, 9) =$ ☐ $[2, 6]$ ☐ $(-1, 2]$ ☐ $(-1, 2)$ ☐ $[6, 9)$
25) If the graph of the function $f(x) = x^3$ is shifted a distance 2 units upward, then the new graph represented the graph of the function ☐ $(x - 2)^3$ ☐ $(x + 2)^3$ ☐ $x^3 + 2$ ☐ $x^3 - 2$
26) The midpoint of the segment with endpoints $(x, -1)$ & $(3x, 7)$ is ☐ $(2x, 5)$ ☐ $(x, 2)$ ☐ $(2x, -3)$ ☐ $(2x, 3)$
27) Find the distance between the points $(-1, 2)$ and $(2, -1)$ is ☐ $2\sqrt{3}$ ☐ $3\sqrt{2}$ ☐ 9 ☐ 3
28) The domain of 3^x is ☐ $(-\infty, \infty)$ ☐ $(0, \infty)$ ☐ $[0, \infty)$ ☐ $(-\infty, 0)$
29) The function $f(x) = x^2$ is increasing on ☐ $(-\infty, 0)$ ☐ $(0, \infty)$ ☐ $(-\infty, \infty)$ ☐ Nowhere
30) Find the distance between the numbers -6 and 11 . ☐ 5 ☐ 17 ☐ -17 ☐ 11

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Your Name		ID		C	
1) If $f(x) = x^2 + 7$, then $\frac{f(x+h) - f(x)}{h} =$					
☐ $x + h$ ☐ $2x - h$ ☐ $2x + h$ ☐ $2x + h^2$					
2) The function $f(x) = x^2$ is decreasing on					
☐ $(-\infty, 0)$ ☐ $(0, \infty)$ ☐ $(-\infty, \infty)$ ☐ Nowhere					
3) Solve $ 2x - 3 < 9$.					
☐ $(-3, 6)$ ☐ $[-3, 6]$ ☐ $(-\infty, -3) \cup (6, \infty)$ ☐ $(-\infty, -3] \cup [6, \infty)$					
4) Find the slope of the line through the points $(4, 3)$ and $(-2, 1)$.					
☐ -1 ☐ $\frac{1}{3}$ ☐ $-\frac{1}{3}$ ☐ 1					
5) Find the equation of the line through the points $(4, 3)$ and $(-2, 1)$.					
☐ $3y - x + 5 = 0$ ☐ $-3y - x + 5 = 0$ ☐ $3y - x - 5 = 0$ ☐ $3y + x + 5 = 0$					
6) Find the equation of the line through the point $(-2, 1)$ with slope $\frac{1}{3}$.					
☐ $y = \frac{x}{3} - \frac{5}{3}$ ☐ $y = \frac{x}{3} + \frac{5}{3}$ ☐ $y = -\frac{x}{3} - \frac{5}{3}$ ☐ $y = -\frac{x}{3} + \frac{5}{3}$					
7) If $f(x) = x^3$ and $g(x) = \sqrt[3]{x-2}$, then $(f \circ g)(x) =$					
☐ $\sqrt[3]{2-x^3}$ ☐ $x-2$ ☐ $\sqrt[3]{x^3-2}$ ☐ $2-x$					
8) Find the y -intercept of the line $2x - 3y + 1 = 0$.					
☐ $\frac{1}{3}$ ☐ $-\frac{1}{3}$ ☐ $-\frac{1}{2}$ ☐ $\frac{1}{2}$					
9) The equation for the line passes through $(4, -1)$ and perpendicular to the line $2x - 3y - 3 = 0$ is					
☐ $3x + 2y = 10$ ☐ $2x + 3y = 10$ ☐ $3x + 2y = -2$ ☐ $2x - 3y = 3$					

10)	Find the domain of $f(x) = \sqrt{x} + \sqrt{x-2}$.			
☐ a	$(2, \infty)$	☐ b	$(-\infty, 2)$	☐ c $(-\infty, 2]$ ☐ d $[2, \infty)$
11)	The function $f(x) = 2x^5 + x^3$ is			
☐ a	Even	☐ b	Odd	☐ c Even and odd ☐ d Neither even nor odd
12)	If $f(x) = x^2 + 5x + 6$ and $g(x) = x + 3$, then $\left(\frac{f}{g}\right)(x) =$			
☐ a	$x + 3$	☐ b	$x + 2$	☐ c $x + 6$ ☐ d $x - 6$
13)	Find the range of $f(x) = x + 5 $.			
☐ a	$(-5, \infty)$	☐ b	$[0, \infty)$	☐ c $(0, \infty)$ ☐ d $(-\infty, \infty)$
14)	Find the domain of $f(x) = \frac{x+7}{x^2-9}$.			
☐ a	$(-7, \infty)$	☐ b	$(-\infty, \infty)$	
☐ c	$(-\infty, -3) \cup (3, \infty)$	☐ d	$(-\infty, -3) \cup (-3, 3) \cup (3, \infty)$	
15)	$(-3, 5] \setminus (3, 9) =$			
☐ a	$[3, 5]$	☐ b	$(-3, 3]$	☐ c $(-3, 3)$ ☐ d $[5, 9)$
16)	If the graph of the function $f(x) = x^3$ is shifted a distance 2 units downward, then the new graph represented the graph of the function			
☐ a	$(x-2)^3$	☐ b	$(x+2)^3$	☐ c $x^3 + 2$ ☐ d $x^3 - 2$
17)	Find the distance between the numbers -6 and 11.			
☐ a	5	☐ b	-17	☐ c 17 ☐ d 11
18)	Solve $x^2 - x - 2 > 0$.			
☐ a	$(-\infty, -1] \cup [2, \infty)$	☐ b	$(-\infty, -2) \cup (1, \infty)$	
☐ c	$(-\infty, -1) \cup (2, \infty)$	☐ d	$(-\infty, -2] \cup [1, \infty)$	
19)	$ 4 - \pi =$			
☐ a	$\pi - 4$	☐ b	$4 - \pi$	☐ c $-4 - \pi$ ☐ d $4 + \pi$
20)	Solve $ 2x - 3 \geq 9$.			
☐ a	$(-3, 6)$	☐ b	$[-3, 6]$	☐ c $(-\infty, -3) \cup (6, \infty)$ ☐ d $(-\infty, -3] \cup [6, \infty)$
21)	If $f(x) = x^2 - x + 3$ and $g(x) = x$, then $(f - g)(x) =$			
☐ a	$x + 3$	☐ b	$x^2 - 2x + 3$	☐ c $(x^2 + x + 3)x$ ☐ d $x^2 + 3$

22)	The midpoint of the segment with endpoints $(y, -2)$ & $(3y, -4)$ is			
☐ a	$(2y, 5)$	☐ b	$(y, -3)$	☐ c $(2y, -3)$ ☐ d $(2y, 3)$
23)	The function $f(x) = \sin x$ is			
☐ a	polynomial	☐ b	trigonometric	☐ c exponential ☐ d power
24)	The whole number is			
☐ a	2	☐ b	$0.\bar{2}$	☐ c π ☐ d -2
25)	Find the distance between the points $(-1, 2)$ and $(2, -1)$.			
☐ a	$3\sqrt{2}$	☐ b	$2\sqrt{3}$	☐ c 9 ☐ d 3
26)	Solve $ 2x - 11 = 3$.			
☐ a	4 or 7	☐ b	-7 or -4	☐ c -7, or 4 ☐ d -4 or 7
27)	The domain of 2^x is			
☐ a	$[0, \infty)$	☐ b	$(-\infty, 0)$	☐ c $(-\infty, \infty)$ ☐ d $(0, \infty)$
28)	Solve $-8 \leq 2x - 4 < 10$.			
☐ a	$[-2, 7]$	☐ b	$(-2, 7)$	☐ c $[-2, 7)$ ☐ d $(-2, 7]$
29)	Find the domain of $f(x) = \sqrt{4 - x^2}$.			
☐ a	$[-2, 2]$	☐ b	$(-2, 2)$	
☐ c	$(-\infty, -2) \cup (2, \infty)$	☐ d	$(-\infty, -2] \cup [2, \infty)$	
30)	Find the domain of $f(x) = x^2 - 9$.			
☐ a	$(-\infty, \infty)$	☐ b	$(-3, 3)$	☐ c $[-3, 3]$ ☐ d $(-\infty, -3) \cup (-3, \infty)$

Higher Education Ministry King Abdul-Aziz University Faculty of Science Department of Mathematics				First Midterm Exam Summer, 2013 Math 110 - 30 Marks Time Allowed: 90 Minutes	
Your Name		ID		B	
1) Solve $x^2 + x - 2 \geq 0$. ☐ $(-\infty, -1] \cup [2, \infty)$ ☐ $(-\infty, -2) \cup (1, \infty)$ ☐ $(-\infty, -1) \cup (2, \infty)$ ☐ $(-\infty, -2] \cup [1, \infty)$					
2) Solve $ 2x - 5 \leq 9$. ☐ $(-\infty, -2) \cup (7, \infty)$ ☐ $[-2, 7]$ ☐ $(-\infty, -2] \cup [7, \infty)$ ☐ $(-2, 7)$					
3) Find the y -intercept of the line $2x + 3y + 1 = 0$. ☐ $\frac{1}{3}$ ☐ $-\frac{1}{3}$ ☐ $-\frac{1}{2}$ ☐ $\frac{1}{2}$					
4) The function $f(x) = x^3$ is increasing on ☐ $(-\infty, 0)$ ☐ $(0, \infty)$ ☐ $(-\infty, \infty)$ ☐ Nowhere					
5) The equation for the line passes through $(4, -1)$ and perpendicular to the line $2x - 3y - 3 = 0$ is ☐ $3x + 2y = -2$ ☐ $2x + 3y = 10$ ☐ $3x + 2y = 10$ ☐ $2x - 3y = 3$					
6) Solve $ 2x - 5 > 9$. ☐ $(-\infty, -2) \cup (7, \infty)$ ☐ $[-2, 7]$ ☐ $(-\infty, -2] \cup [7, \infty)$ ☐ $(-2, 7)$					
7) Find the domain of $f(x) = \sqrt{x} + \sqrt{x - 5}$. ☐ $(-\infty, 5]$ ☐ $[5, \infty)$ ☐ $(-\infty, 5)$ ☐ $(5, \infty)$					
8) The function $f(x) = 6x^3 + 3$ is ☐ Even ☐ Odd ☐ Even and odd ☐ Neither even nor odd					
9) If $f(x) = x^2 + x + 3$ and $g(x) = -x^2$, then $(f - g)(x) =$ ☐ $x + 3$ ☐ $x^2 + 3$ ☐ $(x^2 + x + 3)x$ ☐ $2x^2 + x + 3$					

10)	If $f(x) = x^2 + 7x + 6$ and $g(x) = x + 1$, then $\left(\frac{f}{g}\right)(x) =$			
☐ a	$x + 3$	☐ b	$x - 3$	☐ c $x + 6$ ☐ d $x - 6$
11)	The function $f(x) = e^x$ is			
☐ a	trigonometric	☐ b	polynomial	☐ c exponential ☐ d power
12)	$(-2, 6] \setminus (5, 8) =$			
☐ a	$[5, 6]$	☐ b	$(-2, 5)$	☐ c $(-2, 5]$ ☐ d $[6, 8)$
13)	Find the domain of $f(x) = 9 - x^2$.			
☐ a	$(-\infty, -3) \cup (-3, \infty)$	☐ b	$(-3, 3)$	☐ c $[-3, 3]$ ☐ d $(-\infty, \infty)$
14)	The integer is			
☐ a	π	☐ b	$\sqrt{5}$	☐ c $0.\bar{5}$ ☐ d -5
15)	If $f(x) = x^2 + 5$, then $\frac{f(x+h) - f(x)}{h} =$			
☐ a	$x + h$	☐ b	$2x + h$	☐ c $2x - h$ ☐ d $2x + h^2$
16)	Find the distance between the numbers -5 and 13 .			
☐ a	7	☐ b	-18	☐ c 13 ☐ d 18
17)	Find the slope of the line through the points $(3, 4)$ and $(-5, 2)$.			
☐ a	-1	☐ b	1	☐ c $\frac{1}{4}$ ☐ d $-\frac{1}{4}$
18)	Find the equation of the line through the points $(3, 4)$ and $(-5, 2)$.			
☐ a	$-4y - x + 13 = 0$	☐ b	$4y - x - 13 = 0$	
☐ c	$4y + x + 13 = 0$	☐ d	$4y - x + 13 = 0$	
19)	Find the equation of the line through the point $(-5, 2)$ with slope $\frac{1}{4}$.			
☐ a	$y = -\frac{x}{4} + \frac{13}{4}$	☐ b	$y = \frac{x}{4} - \frac{13}{4}$	☐ c $y = -\frac{x}{4} - \frac{13}{4}$ ☐ d $y = \frac{x}{4} + \frac{13}{4}$
20)	The midpoint of the segment with endpoints $(-x, -1)$ & $(7x, 5)$ is			
☐ a	$(3x, 6)$	☐ b	$(3x, 2)$	☐ c $(3x, -2)$ ☐ d $(2x, 3)$
21)	Find the range of $f(x) = x - 6 $.			
☐ a	$[0, \infty)$	☐ b	$(6, \infty)$	☐ c $(0, \infty)$ ☐ d $(-\infty, \infty)$

22) If the graph of the function $f(x) = x^3$ is shifted a distance 2 units to the right, then the new graph represented the graph of the function			
☐ a $(x - 2)^3$	☐ b $(x + 2)^3$	☐ c $x^3 + 2$	☐ d $x^3 - 2$
23) Find the distance between the points $(-1, 2)$ and $(2, -1)$.			
☐ a 3	☐ b $2\sqrt{3}$	☐ c 9	☐ d $3\sqrt{2}$
24) Solve $-8 < 2x - 4 \leq 10$.			
☐ a $[-2, 7]$	☐ b $(-2, 7)$	☐ c $[-2, 7)$	☐ d $(-2, 7]$
25) Solve $ 2x + 13 = 3$.			
☐ a -5, or 8	☐ b -8 or 5	☐ c 5 or 8	☐ d -8 or -5
26) Find the domain of $f(x) = \frac{x + 3}{x^2 - 16}$.			
☐ a $(-3, \infty)$	☐ b $(-\infty, -4) \cup (-4, 4) \cup (4, \infty)$		
☐ c $(-\infty, -4) \cup (4, \infty)$	☐ d $(-\infty, \infty)$		
27) The range of 5^x is			
☐ a $[0, \infty)$	☐ b $(-\infty, \infty)$	☐ c $(0, \infty)$	☐ d $(-\infty, 0)$
28) If $f(x) = x^3$ and $g(x) = \sqrt[3]{3 - x}$, then $(f \circ g)(x) =$			
☐ a $\sqrt[3]{3 - x^3}$	☐ b $x - 3$	☐ c $\sqrt[3]{x^3 - 3}$	☐ d $3 - x$
29) $ \pi + 3 =$			
☐ a $\pi - 3$	☐ b $3 - \pi$	☐ c $-3 - \pi$	☐ d $3 + \pi$
30) Find the domain of $f(x) = \sqrt{9 - x^2}$.			
☐ a $[-3, 3]$	☐ b $(-\infty, -3) \cup (3, \infty)$	☐ c $(-3, 3)$	☐ d $(-\infty, -3] \cup [3, \infty)$

Higher Education Ministry King Abdul-Aziz University Faculty of Science Department of Mathematics				First Midterm Exam Summer 2013 Math 110 - 30 Marks Time Allowed: 90 Minutes	
Your Name		ID		D	
1) Find the slope of the line through the points (4,3) and (-6,1).					
☐ $\frac{1}{5}$ ☐ 1 ☐ $-\frac{1}{5}$ ☐ -1					
2) Find the equation of the line through the points (4,3) and (-6,1).					
☐ $5y - x - 11 = 0$ ☐ $5y - x + 11 = 0$ ☐ $5y + x - 11 = 0$ ☐ $-5y - x + 11 = 0$					
3) Find the equation of the line through the point (-6,1) with slope $\frac{1}{5}$.					
☐ $y = \frac{x}{5} + \frac{11}{5}$ ☐ $y = -\frac{x}{5} + \frac{11}{5}$ ☐ $y = -\frac{x}{5} - \frac{11}{5}$ ☐ $y = \frac{x}{5} - \frac{11}{5}$					
4) The equation for the line passes through (4,-1) and perpendicular to the line $2x - 3y - 3 = 0$ is					
☐ $3x + 2y = -2$ ☐ $3x + 2y = 10$ ☐ $2x + 3y = 10$ ☐ $2x - 3y = 3$					
5) Find the domain of $f(x) = 4 - x^2$.					
☐ $(-2, 2)$ ☐ $[-2, 2]$ ☐ $(-\infty, \infty)$ ☐ $(-\infty, -2) \cup (-2, \infty)$					
6) Find the domain of $f(x) = \sqrt{x} + \sqrt{x-9}$.					
☐ $[9, \infty)$ ☐ $(-\infty, 9]$ ☐ $(-\infty, 9)$ ☐ $(9, \infty)$					
7) If $f(x) = x^2 + 7x + 6$ and $g(x) = x + 6$, then $\left(\frac{f}{g}\right)(x) =$					
☐ $x + 3$ ☐ $x - 3$ ☐ $x + 1$ ☐ $x - 1$					
8) The function $f(x) = 3x^4 + x^2 + 1$ is					
☐ trigonometric ☐ exponential ☐ polynomial ☐ power					

9) The natural number is
☐ $\sqrt{7}$ ☐ 7 ☐ $0.\bar{7}$ ☐ -7
10) $(-5, 2] \setminus (1, 8) =$
☐ $[1, 2]$ ☐ $(-5, 1)$ ☐ $(-5, 1]$ ☐ $[2, 8)$
11) Find the y - intercept of the line $3x - 2y + 1 = 0$.
☐ $\frac{1}{3}$ ☐ $-\frac{1}{3}$ ☐ $-\frac{1}{2}$ ☐ $\frac{1}{2}$
12) If $f(x) = x^2 - 2$, then $\frac{f(x+h) - f(x)}{h} =$
☐ $2x + h$ ☐ $x + h$ ☐ $2x - h$ ☐ $2x + h^2$
13) The function $f(x) = x^3$ is decreasing on
☐ $(-\infty, 0)$ ☐ $(0, \infty)$ ☐ $(-\infty, \infty)$ ☐ Nowhere
14) If the graph of the function x^3 is shifted a distance 2 units to the left, then the new graph represented the graph of the function
☐ $(x - 2)^3$ ☐ $(x + 2)^3$ ☐ $x^3 + 2$ ☐ $x^3 - 2$
15) $ \pi + 4 =$
☐ $4 - \pi$ ☐ $-4 - \pi$ ☐ $\pi + 4$ ☐ $\pi - 4$
16) Find the domain of $f(x) = \frac{x-3}{x^2-25}$.
☐ $(-\infty, -5) \cup (-5, 5) \cup (5, \infty)$ ☐ $(3, \infty)$
☐ $(-\infty, -5) \cup (5, \infty)$ ☐ $(-\infty, \infty)$
17) Solve $-8 < 2x - 4 < 10$.
☐ $[-2, 7]$ ☐ $(-2, 7)$ ☐ $[-2, 7)$ ☐ $(-2, 7]$
18) Solve $ 2x - 5 \geq 9$.
☐ $(-\infty, -2) \cup (7, \infty)$ ☐ $[-2, 7]$
☐ $(-\infty, -2] \cup [7, \infty)$ ☐ $(-2, 7)$
19) Find the distance between the points $(-1, 2)$ and $(2, -1)$.
☐ 3 ☐ $2\sqrt{3}$ ☐ $3\sqrt{2}$ ☐ 9
20) The function $f(x) = 7x^3 + x^2$ is
☐ Even ☐ Odd ☐ Neither even nor odd ☐ Even and odd

21)	The midpoint of the segment with endpoints $(y, 1)$ & $(7y, -3)$ is			
☐ a	$(4y, -1)$	☐ b	$(y, 1)$	☐ c $(4y, -2)$ ☐ d $(4y, 1)$
22)	Find the distance between the numbers -4 and 8 .			
☐ a	12	☐ b	-12	☐ c 10 ☐ d 8
23)	Solve $ 2x - 5 < 9$.			
☐ a	$(-\infty, -2) \cup (7, \infty)$	☐ b	$[-2, 7]$	☐ c $(-\infty, -2] \cup [7, \infty)$ ☐ d $(-2, 7)$
24)	Find the domain of $f(x) = \sqrt{x^2 - 9}$.			
☐ a	$[-3, 3]$	☐ b	$(-\infty, -3) \cup (3, \infty)$	☐ c $(-3, 3)$ ☐ d $(-\infty, -3] \cup [3, \infty)$
25)	Solve $x^2 + x - 2 > 0$.			
☐ a	$(-\infty, -1] \cup [2, \infty)$	☐ b	$(-\infty, -2) \cup (1, \infty)$	
☐ c	$(-\infty, -1) \cup (2, \infty)$	☐ d	$(-\infty, -2] \cup [1, \infty)$	
26)	If $f(x) = x^3$ and $g(x) = \sqrt[3]{7-x}$, then $(g \circ f)(x) =$			
☐ a	$\sqrt[3]{7-x^3}$	☐ b	$x-7$	☐ c $\sqrt[3]{x^3-5}$ ☐ d $7-x$
27)	The domain of 7^x is			
☐ a	$(0, \infty)$	☐ b	$(-\infty, 0)$	☐ c $[0, \infty)$ ☐ d $(-\infty, \infty)$
28)	Solve $ 2x - 14 = 2$.			
☐ a	-8 , or 6	☐ b	-6 or 8	☐ c 6 or 8 ☐ d -8 or -6
29)	If $f(x) = -x^2 - x - 3$ and $g(x) = x$, then $(f - g)(x) =$			
☐ a	$x^2 - 3$	☐ b	$x - 3$	☐ c $(x^2 - x - 3)x$ ☐ d $-x^2 - 2x - 3$
30)	Find the range of $f(x) = x - 7 $.			
☐ a	$(0, \infty)$	☐ b	$(7, \infty)$	☐ c $[0, \infty)$ ☐ d $(-\infty, \infty)$

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الاختبار الدوري الأول للفصل الصيفي 1433 / 1434

	A	B	C	D
1	c	d	c	a
2	d	b	a	a
3	b	b	a	a
4	a	c	b	d
5	a	c	c	c
6	d	a	b	a
7	b	b	b	c
8	a	d	a	c
9	c	d	a	b
10	d	c	d	c
11	b	c	b	d
12	a	c	b	a
13	c	d	b	d
14	d	d	d	b
15	d	b	b	c
16	b	d	d	a
17	c	c	c	b
18	a	b	c	c
19	c	d	b	c
20	a	b	d	c
21	a	a	b	c
22	d	a	c	a
23	d	d	b	d
24	b	d	a	d
25	c	d	a	b
26	d	b	a	a
27	b	c	c	d
28	a	d	c	c
29	b	d	a	d
30	b	a	a	c