



Name..... ID:.....

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Choose the correct answer of the following questions:

(1)	The solution set of the inequality $1 + 5x > 9 - 3x$ is		
	(a) $(-\infty, 1)$	(b) $[1, \infty)$	(c) $(1, \infty)$
			(d) $(-\infty, 1]$

(2)	The solution set of the inequality $-5 < 3 + 2x \leq 9$ is		
	(a) $(-4, 3)$	(b) $[-4, 3)$	(c) $[-4, 3]$
			(d) $(-4, 3]$

(3)	$(3) 3 - \pi =$		
	(a) $3 - \pi$	(b) $-3 - \pi$	(c) $\pi - 3$
			(d) $3 + \pi$

(4)	The solution set of the inequality $ x + 5 \geq 2$ is		
	(a) $(-7, -3)$	(b) $[-7, -3]$	(c) $(-\infty, -7] \cup [-3, \infty)$
			(d) $(-\infty, -7] \cup (-3, \infty)$

(5)	The equation of the line passes through the point $(-1, 4)$ with slope -3 is		
	(a) $3x + y = 1$	(b) $3x - y = 1$	(c) $x + 3y = 1$
			(d) $x - 3y = 1$

(6)	The equation of the line passing through $(1, -6)$ and parallel to the line $x + 2y = 6$ is		
	(a) $x + 2y = -11$	(b) $x + 2y = 11$	(c) $x - 3y = -11$
			(d) $x + 3y = 11$

(7)	$\frac{5\pi}{3} =$		
	(a) 120°	(b) 300°	(c) 75°
			(d) 150°

(8)	If a circle has radius 36 cm, the length of an arc subtended by a central angle of $\frac{\pi}{12}$ rad is		
	(a) 3π	(b) 4π	(c) 3
			(d) 4

(9)	$\tan \theta \cdot \csc \theta =$			
	(a) $\cos \theta$	(b) $\tan \theta$	(c) $\sec \theta$	(d) $\csc \theta$

(10)	If $\sin \theta = \frac{3}{5}, 0 \leq \theta \leq \frac{\pi}{2}$ then $\tan \theta =$			
	(a) $\frac{3}{4}$	(b) $-\frac{3}{4}$	(c) $\frac{4}{3}$	(d) $-\frac{4}{3}$

(11)	If the function f defined by $f(x) = \begin{cases} x+2 & \text{if } x \leq -1 \\ x^2 & \text{if } x > -1 \end{cases}$, then $f(-1) =$			
	(a) -1	(b) 0	(c) 1	(d) 3

(12)	The equation for the line passes through $(-1, 0)$ and perpendicular to the line $2x - 3y - 1 = 0$ is			
	(a) $2x - 3y = 3$	(b) $2x + 3y = -3$	(c) $3x + 2y = -3$	(d) $x - 3y = 3$

(13)	The domain of the function $f(x) = \frac{2x+1}{x(3x-3)}$ is			
	(a) \mathbb{R}	(b) $\mathbb{R} - \{3\}$	(c) $\mathbb{R} - \{0, 3\}$	(d) $\mathbb{R} - \{0, 1\}$

(14)	The function $f(x) = x + \frac{x^2}{\sqrt{x-1}}$ is classified as			
	(a) Polynomial	(b) Exponential	(c) Algebraic	(d) Rational

(15)	The function $f(x) = 1 + 3x^3 - x^5$ is			
	(a) Even	(b) Odd	(c) Neither even nor odd	(d) Even and odd

(16)	The distance between the points $P_1(2, 0)$ and $P_2(-1, 4) =$			
	(a) 3	(b) 4	(c) 2	(d) 5

(17)	The domain of the function $y = \sqrt[3]{x}$ is			
	(a) $[0, \infty)$	(b) $(-\infty, \infty)$	(c) $(1, \infty)$	(d) $(0, \infty)$

(18)	The equation of the line passes through $(2, 1)$ and $(1, 6)$ is			
	(a) $5x - y = 11$	(b) $5x - y = -11$	(c) $5x + y = -11$	(d) $5x + y = 11$

(19)	The slope m and y - intercept b of the line $2x + 2y + 4 = 0$ are			
	(a) $m = -1, b = -2$	(b) $m = 5, b = 3$	(c) $m = 2, b = 2$	(d) $m = 1, b = 2$

(20)	The graph of $y = \sin x$ is shifted up 6 units and right 2 units, the equation for the graph is			
	(a) $y = \sin(x - 2) + 6$	(b) $y = \sin(x + 2) + 6$	(c) $y = \sin(x - 2) - 6$	(d) $y = \sin(x + 2) - 6$

(21)	If the graph of the function $y = e^x$ is reflected about the y - axis, the equation for the new graph is			
	(a) $y = e^x$	(b) $y = -e^{-x}$	(c) $y = -e^x$	(d) $y = e^{-x}$

(22)	If $f(x) = x^3 - 4x$ and $g(x) = x + 2$, then $\left(\frac{g}{f}\right)(x) =$			
	(a) $x(x + 2)$	(b) $(x - 2)$	(c) $x(x - 2)$	(d) $(x + 2)$

(23)	If $f(x) = \sqrt{x - 3}$ and $g(x) = x^2$, then $(f \circ g)(x) =$			
	(a) $\sqrt{x^2 - 3}$	(b) $x(x - 2)$	(c) x^2	(d) $\sqrt{x - 3}$

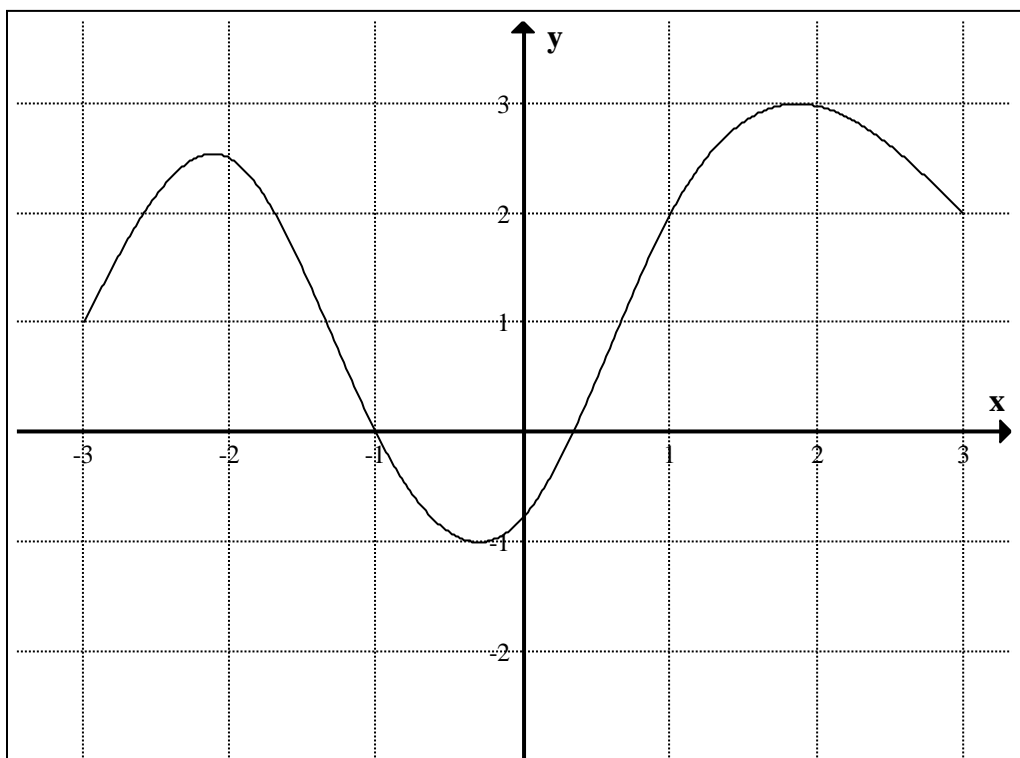
(24)	The domain of the function $y = e^x$ is			
	(a) $[0, \infty)$	(b) $(-\infty, \infty)$	(c) $(1, \infty)$	(d) $(0, \infty)$

(25)	If the graph of $y = e^x$ is compressed vertically by a factor of 5, the equation for the new graph is			
	(a) $y = e^x + 5$	(b) $y = 5e^x$	(c) $y = e^{x-5}$	(d) $y = \frac{1}{5}e^x$

(26)	The range of the function $y = \sqrt{x} + \sqrt{2 - x}$ is			
	(a) $(0, 2)$	(b) $(-\infty, \infty)$	(c) $(2, \infty)$	(d) $[0, 2]$

(27)	The function $y = \frac{1}{x}$ is classified as			
	(a) Polynomial	(b) Exponential	(c) Linear	(d) Power

Use the figure below to solve 28, 29 and 30



(28)	The domain of the function is			
	(a) $[-1, 3]$	(b) $(-1, 3)$	(c) $(0, 3]$	(d) $[-3, 3]$

(29)	The range of the function is			
	(a) $[-1, 3]$	(b) $(-1, 3)$	(c) $(0, 3]$	(d) $[-3, 3]$

(30)	$f(1) =$			
	(a) 1	(b) 0	(c) 2	(d) 3