[9]. Find the limit $\lim_{t\to 0^+} \dfrac{\sqrt{t^3}}{\sqrt{t}}$.

(a) 0 **(b)** 1 **(c)** 2 **(d)** 3 **(e)** The limit does not exist

10]. Find the limit as x tends to 0 from the left $\lim_{x\to 0^-} \dfrac{|x|}{2x}$.

(a) 1/3 **(b)** 1/2 **(c)** 0 **(d)** $-1/2$ **(e)** $-1/3$

11]. Find the limit $\lim_{h\to 0^-} \dfrac{|4h|}{h}$.

(**Hint:** Evaluate the quotient for some negative values of h close to 0.)

(a) 0 **(b)** 2 **(c)** -2 **(d)** 4 **(e)** -4

12]. Compute $\lim_{x\to 3^-} \dfrac{|4x-12|}{x-3}$.

(a) 4 **(b)** -4 **(c)** 0 **(d)** Doesn't exist **(e)** Cannot be determined

13]. Find the limit of $f(x)$ as x tends to 2 from the left if $f(x) = \begin{cases} 1+x^2 & \text{if } x<2 \\ x^3 & \text{if } x\geq 2 \end{cases}$

(a) 5 **(b)** 6 **(c)** 7 **(d)** 8 **(e)** 9

14]. Find the limit of $f(x)$ as x tends to 2 from the left if $f(x) = \begin{cases} x^3-2 & \text{if } x\geq 2 \\ 1+x^2 & \text{if } x<2 \end{cases}$

(a) 5 **(b)** 6 **(c)** 7 **(d)** 8 **(e)** Does not exist

15]. For the function $f(x) = \begin{cases} 4x^2-1 & \text{if } x<1 \\ 3x+2 & \text{if } x\geq 1 \end{cases}$

Find $\lim_{x\to 1^+} f(x)$.

(a) 5 **(b)** 3 **(c)** 1 **(d)** 0 **(e)** The limit does not exist

16]. Let $f(x) = \begin{cases} x^2+8x+15 & \text{if } x\leq 2 \\ 4x+7 & \text{if } x>2. \end{cases}$

Find $\lim_{x\to 2^+} f(x)$.

(a) 15 **(b)** 20 **(c)** 30 **(d)** 35 **(e)** The limit does not exist

Answers

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