

Pre-Calculus Multiple Choice Questions - Chapter A4

1 Write the following intervals in interval notation
 $x < 10$

- a $(10, \infty)$ b $[-\infty, 10)$
c $[10, \infty)$ d $(-\infty, 10)$

	A4.1
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2 Write the following intervals in interval notation
 $x \leq -5$ or $x > 12$

- a $(-\infty, -5) \cup [12, \infty)$ b $(-\infty, -5] \cup [12, \infty)$
c $(-\infty, -5] \cup (12, \infty)$ d $(-\infty, -5) \cup (12, \infty)$

	A4.1
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3 Write the following intervals in interval notation
 $-6 < x \leq 12$

- a $(-6, 12]$ b $[-6, 12)$
c $(-6, 12)$ d $[-6, 12]$

	A4.1
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1 Which of the following is the domain of

$$f(x) = \frac{x}{\sqrt{9-x^2}}$$

- a $x \neq \pm 3$
b $(-3, 3)$
c $[-3, 3]$
d $(-\infty, -3) \cup (3, \infty)$
e $(3, \infty)$

	A4.2
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2 Which of the following is the range of

$$f(x) = 1 + \frac{1}{x-1}$$

- a $(-\infty, 1) \cup (1, \infty)$
b $x \neq 1$
c All Real Numbers
d $(-\infty, 0) \cup (0, \infty)$
e $x \neq 0$

	A4.2
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3 Which of the following is the domain of

$$f(x) = 1 + \frac{1}{x-1}$$

- a $(-\infty, 1) \cup (1, \infty)$
b $x \neq 1$
c All Real Numbers
d $(-\infty, 0) \cup (0, \infty)$
e $x \neq 0$

	A4.2
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1 Which of the following is the inverse of $f(x) = 3x - 2$?

a $g(x) = \frac{1}{3x - 2}$

c $g(x) = 3x - 2$

e $g(x) = \frac{x + 2}{3}$

b $g(x) = x$

d $g(x) = \frac{x - 2}{3}$

2 Which of the following is the inverse of $f(x) = 1 / x$?

a $g(x) = x$

c $g(x) = 1 / x$

e $g(x) = 0.1x$

b $g(x) = 1 + x$

d $g(x) = 1 - x$

3 What is the composite of a function with its inverse?

a 1

c 100

e 0

b $10x$

d x

	A4.5
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	A4.5
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	A4.5
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