



Functions - Notation, Inverses and Composites

Name:.....

Date:.....

$f(x) = 2x + 5$

$f(x) = 23.$
What is x ?

A 18
B 9
C 51
D 6

Correct Answer: A B C D

Explanation:

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$f(x) = 2x + 5$

If $f(x) = x$
Find x

A -5
B 0
C 5
D -10

Correct Answer: A B C D

Explanation:

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$f(x) = \frac{1}{x^2 - 9}$

Which value(s) must be excluded from the domain?

A $x = 3$
B $x = \pm 3$
C $-3 \leq x \leq 3$
D $x < 3$

Correct Answer: A B C D

Explanation:

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$f(x) = \sqrt{x-5}$

Which value(s) must be excluded from the domain?

A $x = 5$

B $x \leq 5$

C $x < 5$

D $x \geq 5$

Correct Answer: A B C D

Explanation:

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$f(x) = 2x + 5$

What is $f^{-1}(x)$

A $2x + 5$

B $\frac{x}{2} - 5$

C $\frac{x-5}{2}$

D $\frac{x+5}{2}$

Correct Answer: A B C D

Explanation:

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$f(x) = x^2 + 1$

What is $f^{-1}(x)$

A $\sqrt{x-1}$

B $\sqrt{x} - 1$

C $\sqrt{x+1}$

D $\sqrt{x} + 1$

Correct Answer: A B C D

Explanation:

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$h(x) = \sqrt{\frac{x-5}{3}}$

Find $h^{-1}(x)$

A $3(x+5)^2$

B $3x^2 + 5$

C $(3x+5)^2$

D $(3x)^2 + 5$

Correct Answer: A B C D

Explanation:

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$g(x) = \frac{x+1}{x+2}$
 Find
 $g^{-1}(x)$

A $\frac{x+1}{x+2}$
B $\frac{1-2x}{x-1}$
C $\frac{2x-1}{x-1}$
D $\frac{2x+1}{x-1}$

Correct Answer: A B C D

Explanation:

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$f(x) = 3x + 5$
 $g(x) = x^2$
 Find
 $f(g(2))$

A 11
B 121
C 12
D 17

Correct Answer: A B C D

Explanation:

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$f(x) = 3x + 5$
 $g(x) = x^2$
 Find
 $g(f(2))$

A 11
B 121
C 12
D 17

Correct Answer: A B C D

Explanation:

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$f(x) = 3x + 5$
 Find
 $f(f(3))$

A 47
B 57
C 14
D 196

Correct Answer: A B C D

Explanation:

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$f(x) = 3x + 5$

Find $f(x+1)$

A $3x+6$

B $4x+6$

C $3x+8$

D $4x+5$

Correct Answer: A B C D

Explanation:

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$f(x) = \frac{4}{x^2}$

Find $f(2x)$

A $\frac{4}{x^4}$

B $\frac{4}{2x^2}$

C $\frac{2}{x^2}$

D $\frac{1}{x^2}$

Correct Answer: A B C D

Explanation:

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$g(x) = 3x + 2$

Find $g(2x + 1)$

A $5x+5$

B $5x+3$

C $6x+5$

D $6x+3$

Correct Answer: A B C D

Explanation:

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$g(x) = 4x - 1$

Find $g(\frac{x+1}{4})$

A $3x$

B $x+3$

C $\frac{4x+1}{4} - 1$

D x

Correct Answer: A B C D

Explanation:

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