Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 1*

Using $f(x) = 4x + 3$ and $g(x) = x - 2$, find:

1. $f(g(5))$

2. $g(f(-6))$

3. $f(f(7))$

4. $g(f(x))$

Using $f(x) = 6x^2$ and $g(x) = 14x + 4$ find:

5. $(f \circ g)(x)$

6. $(g \circ f)(x)$

7. *Are these two answers the same? What does this information tell you about composition?*

The notation $[x]$ means the greatest integer not exceeding the value of x. Given $f(x) = [x], g(x) = 12x$ and $h(x) = 6/x$ find:

8. $(f \circ g)(5)$

9. $(f \circ h)(x)$

10. $(h \circ f)(3)$

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 1* **ANSWERS**

1. 15

2. -23

3. 127

4. $4x + 1$

5. $1176x^2 + 672x + 96$

6. $84x^2 + 4$

7. $(f \circ g)(x)$ And $(g \circ f)(x)$ are two different composition and their values need not be same.

8. 60

9. $6/x$

10. 2

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 2*

Using $f(x) = 5x + 4$ and $g(x) = x - 3$, find:

1. $f(g(6))$

2. $g(f(-7))$

3. $f(f(8))$

4. $g(f(x))$

Using $f(x) = 8x^2$ and $g(x) = 2x + 8$ find:

5. $(f \circ g)(x)$

6. $(f \circ g)(x)$

7. Are these two answers the same? What does this information tell you about composition?

The notation $[x]$ means the greatest integer not exceeding the value of x. Given $f(x) = [x], g(x) = 15x$ and $h(x) = 8/x$ find:

8. $(f \circ g)(6)$

9. $(f \circ h)(4)$

10. $(h \circ f)(4)$

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 2* **ANSWERS**

1. 19

2. -34

3. 224

4. $5x + 1$

5. $32x^2 + 256x + 512$

6. $32x^2 + 256x + 512$

7. $(f \circ g)(x)$ And $(f \circ g)(x)$ are two different composition and their values could be same.

8. 90

9. 2

10. 2

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 3*

Using f(x)=6x+2 and g(x)= x-5,find:

1. f(g(7))

2. g(f(3))

3. f(f(2))

4. g(g(x))

Using f(x)=2x² and g(x) =3x+4 find:

5. (g ∘ f)(5)

6. (f ∘ g)(5)

7. Are these two answers the same? What does this information tell you about composition?

The notation [x]means the greatest integer not exceeding the value of x. Given f(x) = [x],g(x) =8x and h(x) =5/x find:

8. (f∘ g) (4)

9. (f∘ h) (2)

10. (h ° f) (x)

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 3* **ANSWERS**

1. 14

2. 15

3. 86

4. x-10

5. 154

6. 722

7. (g ∘ f)(5) And (f ∘ g) (5) are two different composition and their values need not be same.

8. 32

9. 2.5

10. 5/x

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 4*

Using f(x) = 7x + 4 and g(x) = 2x - 4, find:

1. f(g(3))

2. g(f(4))

3. f(f(3))

4. g(g(5))

Using f(x) = 8x and g(x) = 4x + 2 find:

5. $(g \circ g)(x)$

6. $(f \circ f)(x)$

7. Are these two answers the same? What does this information tell you about composition?

The notation [x] means the greatest integer not exceeding the value of x. Given f(x) = [x], g(x) = 4x and h(x) = 4/x find:

8. $(f \circ g)(x)$

9. $(f \circ h)(4)$

10. $(h \circ f)(2)$

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 4* **ANSWERS**

1. 18

2. 60

3. 179

4. 8

5. $16x + 10$

6. $64x$

7. NO, $(g \circ g)(x)$ And $(f \circ f)(x)$ are two different composition and their values need not be same.

8. $4x$

9. 1

10. 2

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 5*

Using $f(x) = 8x + 5$ and $g(x) = 7x - 2$, find:

1. $f(g(4))$

2. $g(f(6))$

3. $f(f(3))$

4. $g(g(2))$

Using $f(x) = 7x^2$ and $g(x) = 5x + 1$ find:

5. $(g \circ g)(2)$

6. $(f \circ f)(2)$

7. *Are these two answers the same? What does this information tell you about composition?*

The notation $[x]$ means the greatest integer not exceeding the value of x. Given $f(x) = [x], g(x) = 6x^2$ and $h(x) = 6/2x$ find:

8. $(f \circ g)(3)$

9. $(f \circ h)(5)$

10. $(h \circ f)(3)$

Name: _____ Date _____

Topic : *Composition of Functions - Worksheet 5* ANSWERS

1. 213

2. 369

3. 237

4. 82

5. 56

6. 5488

7. NO, (g ∘ g) (2) And (f ∘ f) (2) are two different composition and their values need not be same.

8. 54

9. 3/5

10. 1