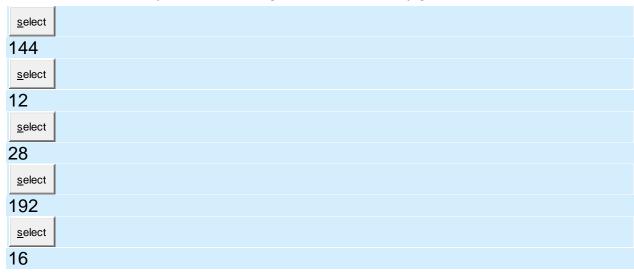
GRE QUANT PRACTICE PAPER

1. Given the functions f(x) = 2x + 4 and g(x) = 3x - 6, what is f(g(x)) when x = 6?



2. A jet goes from City 1 to City 2 at an average speed of 600 miles per hour, and returns along the same path at an average speed if 300 miles per hour. What is the average speed, in miles per hour, for the trip?

```
300miles/hour

select
400miles/hour

select
350miles/hour

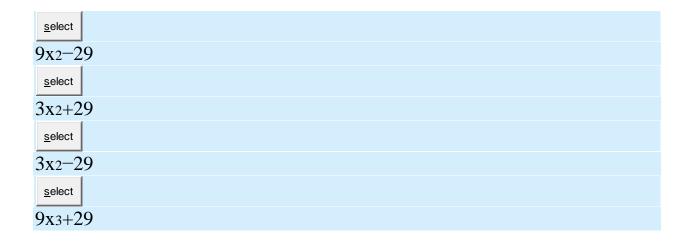
select
450miles/hour

select
500miles/hour
```

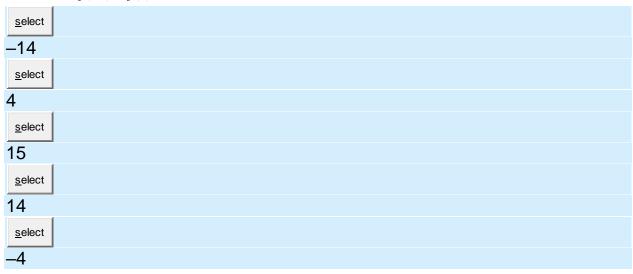
3. If f(x)=3x+7 and $g(x)=x_2-12$, what is f(g(x))?

```
<u>select</u>

3x3-29
```



4. What is f(-3) if $f(x) = x^2 + 5$?



5. An outpost has the supplies to last 2 people for 14 days. How many days will the supplies last for 7 people?

<u>s</u> elect		
4		
<u>s</u> elect		
9		
<u>s</u> elect		
5		
<u>s</u> elect		
10		

select 7

$$f(x)=3x_2-5$$

$$g(x)=9-2x$$

6. Find f(g(5)).

Find f(6)

7. $f(x)=|x_2+4x-127|$

```
select 36
```

8. A function f(x) = -1 for all values of x. Another function g(x) = 3x for all values of x. What is g(f(x)) when x = 4?

```
select
-12
select
-3
select
3
select
-1
select
12
```

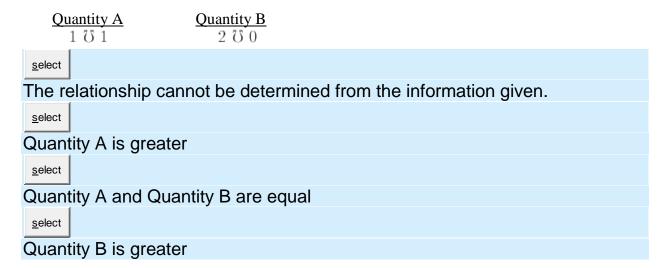
9. Worker *A* can make a trinket in 4 hours, Worker *B* can make a trinket in 2 hours. When they work together, how long will it take them to make a trinket?

```
\frac{\text{select}}{6 \ hours}
\frac{1}{2} \ hour
\frac{1}{3} \ hours
\frac{\text{select}}{3 \ hours}
\frac{\text{select}}{1 \ hours}
```

10. For all values of x, $f(x) = 7x^2 - 3$, and for all values of y, g(y) = 2y + 9. What is g(f(x))?

```
7y^{2} - 3
\underline{\text{select}}
14x^{2} + 3
\underline{\text{select}}
14y^{2} + 3
\underline{\text{select}}
14x^{2} - 3
\underline{\text{select}}
2x + 9
```

11. $a \ \ \ \ b = a(b+1) - 3$



12. Alice is twice as old as Tom, but four years ago, she was three years older than Tom is now. How old is Tom now?

<u>s</u> elect	
7	
<u>s</u> elect	
13	
<u>s</u> elect	

```
21
<u>select</u>

3
<u>select</u>

9
```

13. If the average of two numbers is 3y and one of the numbers is y + z, what is the other number, in terms of y and z?

```
\begin{array}{c} \underline{\mathsf{select}} \\ 5y + z \\ \underline{\mathsf{select}} \\ 4y - z \\ \underline{\mathsf{select}} \\ 3y + z \\ \underline{\mathsf{select}} \\ 5y - z \\ \underline{\mathsf{select}} \\ y + z \end{array}
```

14. What is the value of the function $f(x) = 6x^2 + 16x - 6$ when x = -3?

<u>s</u> elect	
<u>select</u> -108	
<u>s</u> elect	
- 12	
<u>s</u> elect	
0	
<u>s</u> elect	
96	