

## Ответы к самостоятельной работе ...

- 1) [1]  $6 + \sqrt{11} - \sqrt{6}$  [2]  $d = \text{НОД}(f(x), g(x)) = x - 1$   
[3]  $\frac{x^2}{4} - y^2 = 1$  [4]  $\frac{1}{2} \frac{1}{x-3} + \ln|x-3| + \frac{3}{2} \ln|x-1|$   
[5]  $\frac{1}{x+4} + 2 \ln|x+4| + 3 \ln|x+3|$   
[6]  $-\frac{1}{2} \cos x - \frac{1}{38} \cos 19x$  [7] 432
- 2) [1]  $\sqrt{2} + 6$  [2]  $d = \text{НОД}(f(x), g(x)) = 3x + 2$   
[3]  $x^2 - \frac{y^2}{4} = 1$  [4]  $-\frac{1}{x-4} - 2 \ln|x-4| - \ln|x-1|$   
[5]  $\ln(x^2 + 4x + 8) - \ln|x+1| - \frac{1}{2} \operatorname{arctg} \frac{1}{2}(x+2)$   
[6]  $\frac{1}{10} \sin 5x + \frac{1}{26} \sin 13x$  [7] 78

- 3) [1]  $\sqrt{3} + \sqrt{2} + 3$  [2]  $d = \text{НОД}(f(x), g(x)) = 3x - 1$   
[3]  $x^2 - y^2 = 4$   
[4]  $\frac{1}{2} \ln(x^2 - 4x + 6) - \frac{1}{2} \ln|x+4| + \frac{5\sqrt{2}}{4} \operatorname{arctg} \frac{x-2}{\sqrt{2}}$   
[5]  $-2 \ln|x-3| + 2 \ln|x-5| + \ln|x-4|$   
[6]  $-\frac{1}{12} \cos 6x - \frac{1}{20} \cos 10x$  [7] 270