f(x)= 2x+3 & g(x)= 3x+2 then composition of f and g is

- 6x+6
- 5x+5
- **6x+7**

$$fog = f(3x+2)$$
$$= 2(3x+2)+3$$
$$= 6x+4+3$$
$$= 6x+7$$

Question No: 7 (Marks: 1) - Please choose one
Let f is defined recursively by

F(0)=3
F(n+1)=2f(n)+2
Then f(2)=

- 8
- 10
- **18**
- 21

$$f(1) = 2f(0)+2 = 2(3)+2 = 6+2 = 8$$
$$f(2) = 2f(1)+2 = 2(8)+2 = 16+2 = 18$$

Question No: 9 (Marks: 1) - Please choose one
If a pair of dice is thrown then the probability of getting a total of 5 or 11 is

- $\frac{1}{18}$
- $\frac{1}{9}$
- $\frac{1}{6}$

$$Outcomes\ with\ sum\ of\ 5 = (1,4)(2,3),(3,2),(4,1)$$
$$Outcomes\ with\ sum\ of\ 11 = (5,6),(6,5)$$
$$Total\ outcomes\ for\ 5\ \&11 = 6$$
$$Total\ outcome\ for\ 2\ dice = 6\times 6 = 36$$
$$\text{Probability} = \frac{6}{36} = \frac{1}{6}$$

Question No: 10 (Marks: 1) - Please choose one
If a die is rolled then what is the probability that the number is greater than 4