

Subject 8

Please don't write on the exam paper.

Multiple choice quiz:

1. There are 15 balls in a box: 8 balls are green, 4 are blue and 3 are white. Then 1 green and 1 blue ball are taken from the box and put away. What is the probability that a blue ball is selected at random from the box?

- A) $\frac{3}{13}$
- B) $\frac{4}{15}$
- C) $\frac{3}{15}$
- D) $\frac{4}{13}$
- E) $\frac{2}{13}$

2. The range of $f : x \mapsto x^2 - 2x + 1$ is given by the interval

- A) $[0; +\infty[$
- B) $] -\infty; 1]$
- C) $[1; +\infty[$
- D) $[0; +\infty[$
- E) $]1; +\infty[$

3. The diagonal of a square has a measure of 12 inches. What is the perimeter, in inches, of this square?

- A) $6\sqrt{2}$
- B) 72
- C) $24\sqrt{2}$
- D) 144
- E) 48

4. If f is a function such that $f(x+1) = 2x-1$, then

- A) $f(2x) = 4x-1$
- B) $f(2x) = 2x-2$
- C) $f(2x) = 4x-4$
- D) $f(2x) = 4x-3$
- E) $f(2x) = 2$

5. For what value(s) of the parameter m does the equation $(-2x^2 + mx = 2)$ have one solution only?

- A) $m = 0$
- B) $m = -2$ or $m = 2$
- C) $m = -1$ or $m = 1$
- D) $m = 16$
- E) $m = -4$ or $m = 4$