Lycée qualifiant Tariq Ben Zyad Niveau : 2BACSHF	❖ DEVOIR SURVEILLÉ N° 1 ❖ Semestre 2 – ZipGrade C	Professeur : Bouyguir Taher www.proftaher.com

Nom et prénom : ..... Numéro : .....

Exercice 1 : QCM – questions 1 à 10

On considère $f(x) = x^2 + x$. Cocher la ou les réponses correctes.

1. D_f :

☐ A. $]0;+\infty[$ ☐ B. $]-\infty;0[$ ☐ C. $]-\infty;+\infty[$ ☐ D. $]-\infty;0[\cup]0;+\infty[$

2. $f(1)$:

☐ A. 3 ☐ B. 1 ☐ C. 2 ☐ D. -1

3. $f(3)$:

☐ A. 15 ☐ B. 6 ☐ C. 12 ☐ D. 8

4. $f(-1)$:

☐ A. -2 ☐ B. -1 ☐ C. 0 ☐ D. 2

5. $\lim\limits_{x\to+\infty} f(x)$:

☐ A. $-\infty$ ☐ B. 2 ☐ C. $+\infty$ ☐ D. x^2

6. $\lim\limits_{x\to-\infty} f(x)$:

☐ A. $-\infty$ ☐ B. 0 ☐ C. $+\infty$ ☐ D. x^2

7. $f'(x)$:

☐ A. $2x$ ☐ B. $x+1$ ☐ C. $2x+1$ ☐ D. $2x-1$

8. $f'(0)$:

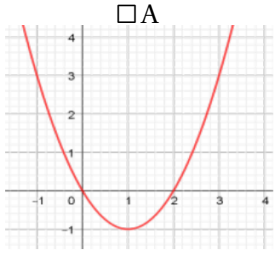
☐ A. 0 ☐ B. 2 ☐ C. 1 ☐ D. 3

9. Solution de $2x+1=0$

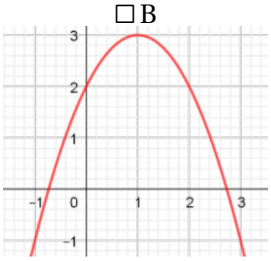
☐ A. -3 ☐ B. $\frac{1}{2}$ ☐ C. $-\frac{1}{2}$ ☐ D. 0

10. La courbe représentative de f est :

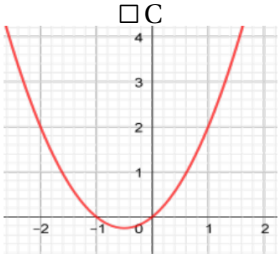
☐ A



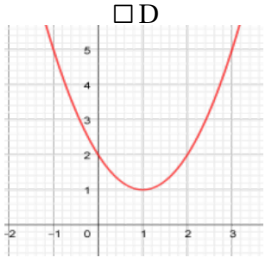
☐ B



☐ C



☐ D



Exercice 2 : QCM – questions 11 à 20

On considère $g(x) = \sqrt{x-3}$. Cocher la ou les réponses correctes.

11. D_g :

☐ A. $[-3;+\infty[$ ☐ B. $]-\infty;+\infty[$ ☐ C. $]-\infty;3]$ ☐ D. $[3;+\infty[$

12. $g(4)$:

☐ A. $\frac{1}{2}$ ☐ B. 1 ☐ C. $\sqrt{7}$ ☐ D. -1

13. $g(3)$:

☐ A. 0 ☐ B. -2 ☐ C. 3 ☐ D. $\sqrt{6}$

14. $g(5)$:

☐ A. 1 ☐ B. 2 ☐ C. 4 ☐ D. $\sqrt{2}$

15. $\lim\limits_{x\to+\infty} g(x)$:

☐ A. $-\infty$ ☐ B. -3 ☐ C. $+\infty$ ☐ D. 0

16. $\lim\limits_{x\to 3^+} g(x)$:

☐ A. $+\infty$ ☐ B. $-\infty$ ☐ C. 0 ☐ D. -3

17. $g'(x)$:

☐ A. $\frac{1}{2\sqrt{x-3}}$ ☐ B. $-\frac{3}{2\sqrt{x-3}}$ ☐ C. $\frac{3}{2\sqrt{x-3}}$ ☐ D. $\frac{1}{\sqrt{x-3}}$

18. Dérivabilité en 3

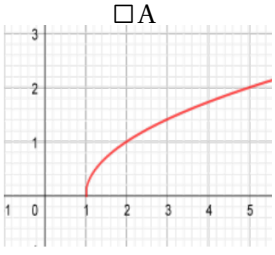
☐ A. Non dérivable en 3. ☐ B. $g'(3) = \frac{1}{2}$ ☐ C. $g'(3) = \frac{3}{2}$ ☐ D. $g'(3) = 0$

19. Solution de $x - 3 = 0$

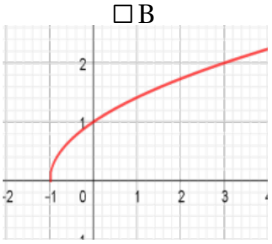
☐ A. -3 ☐ B. 3 ☐ C. 0 ☐ D. Aucune solution

20. La courbe représentative de g est :

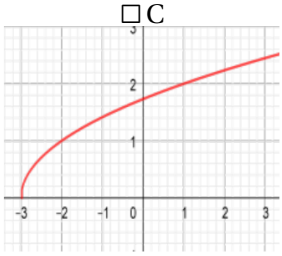
☐ A



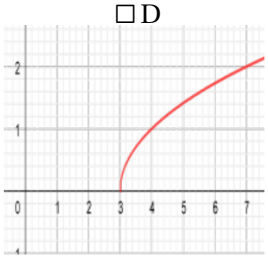
☐ B



☐ C



☐ D



Bon courage! ☺