Relations, Functions, Graphs

Name _____ _____ Date _____

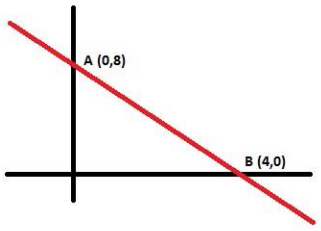

Fig. 1

Use Fig. 1 above to answer Questions 1-3.

1. In the diagram shown in Fig. 1 above, the gradient of the line AB is

   A. -2

   B. 1/2

   C. -1/2

   D. 2

2. In the diagram shown in Fig. 1 above, the equation of the line is

   A. $y = -1/2\ x + 8$

   B. $y = 1/2x + 4$

   C. $y = -2x + 8$

   D. $y = 2\ x + 4$

3. The gradient of any line perpendicular to the line AB as shown in Fig.1 is

   A. 2

   B. -2

   C. -1/2

   D. ½

4. A function $g(x) = 2x^2 + 4x$. For what values of x is g(x) negative?

   A. $\{ x: -2 < x < 0 \}$

   B. $\{x: 0 < x \text{ and } x < -2\}$

   C. $\{ x: 2 < x < 0 \}$

   D. $\{x: x > -2 \}$

5. Given $g(x) = 2 - 5x$. Then $g(4) =$

   A. 18

   B. -18

   C. 12

   D. -12

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6. If $h(x) = 4x^2 - 3x + 1$, then f(-2) =

A. 11

B. 23

C. -9

D. -21

7. If f(x) = 2x + 1 and g(x) = 2x -3, then gf (3) is

A. 3

B. 7

C. 11

D. 14

8. If f(x) = 2x + 1 and g(x) = 2x -3, then gf (3) is

A. x/2 - 1

B. 2x - 1

C. (x-1)/2

D. x/2 + 1

9. The length of a line MN, where M(-1, 3) and N (2,7), is the positive square root of

A. 5

B. 17

C. 25

D. 65

10. The mid-point of a line PQ, where P(-4, 6) and Q (12, -9), is

A. (4, -1.5)

B. (-4 , 1.5)

C. (- 4, -1.5)

D. (4, 1.5)

END OF TEST

