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| Year  10 | | Functions and Graphs Practice Test | | Non Calculator |
| Short Answer Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this Practice Test paper. | | | |
| 1. | Find the missing values in the table below for the equation     |  |  |  |  |  | | --- | --- | --- | --- | --- | | *x* | -2 | -1 | 0 | 1 | | *y* | 10 |  |  | 4 | | | | |
|  | **Questions 2 and 3 refer to the graph below**  The graph shows the water level in a river on a morning when a flash flood came through.  Depth of  water    Time (a.m.) | | | |
| 2. | By how much did the water level rise, from the original depth to its peak ?  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 3. | At what time did the river return to its original depth ? | | | |
| ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 4. | Part of a parabola has been drawn.  The point A (0, -9) is the vertex of the parabola.  Draw a neat sketch of the rest of the parabola. | | | |
| 5. | A circle has equation . What is the radius of the circle?  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 6. | A graph is shown.  Write a possible equation of the graph.  ............................................................................  ............................................................................    ............................................................................  ............................................................................ | | | |

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| Year  10 | | Functions Practice Test | | Calculator |
| Multiple Choice Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Mark all your answers on the accompanying multiple choice answer sheet, not on this Practice Test paper. You may do any working out on this Practice Test paper. Calculators are allowed for this section. | | | |
| 1. | Which equation below would represent a hyperbola?  A.  B.  C.  D. | | | |
| 2. | Which graph below could have an equation of  ?  A. B.  C. D. | | | |
| 3. | Which graph does not include the point ( 2, 4) ?    A.  B.  C.  D. | | | |
| 4. | Which graph below best represents the height of a ball thrown up in the air which falls back to ground and bounces ?  A B  C D | | | |
| 5. | The graph below represents the depth of water in Joels bath. He first filled the bath with water, then shortly after got into the bath. After getting out, he let the water out.  Depth  (dm)  Time (min)  How long did Joel remain in the bath ?  A. 2 min B. 10 min C. 4 min D. 6 min | | | |
| 6. | Which equation could describe the graph shown?  A.  B.  C.  D. | | | |
| 7. | Which graph would represent the circle with equation .  A. B.  C. D. | | | |
| 8. | The graph of  would have a *y* intercept at:  A.  B.  C.  D. | | | |
| 9. | Which equation could describe the graph shown?  A.  B.  C.  D. | | | |
| 10. | Which graph would represent the parabola with equation .  A. B.  C. D. | | | |

Functions and Graphs Practice Test

Multiple Choice Section

Answer Sheet

Name ­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Completely fill the response oval representing the most correct answer.

1. A B C D

2. A B C D

3. A B C D

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. A B C D

9. A B C D

10. A B C D

|  |  |  |  |  |
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| Year  10 | | Functions and Graphs Practice Test | | Non Calculator |
| Longer Answer Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this Practice Test paper. | | | |
| 1. | (a) (2 marks) Complete the table below for the equation .   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | -1 | 0 | 1 | 2 | 3 | | *y* |  |  |  |  |  |   (b) (3 marks) Use the axes below to draw a sketch of .  (c) (1 mark) Use the graph to estimate the value of  when *x* = 2.5.    ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 2. | (a) (2 marks) Complete the table of values for .   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *x* | -2 | -1 | 0 | 1 | 2 | 3 | | *y* |  |  |  |  |  |  |   .  (b) (3 marks) Use the axes below to draw a sketch of .  (c) (1 mark) Use the graph to estimate the value of .  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |