1.2 Pure: Algebra and Functions: 10-minute Pack

EDEXCEL 9MA0 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Simplify $(3x^4)^2$.

(Total for Question 1 is 1 mark)

2 Solve $x^2 = 121$, giving both values of x.

(Total for Question 2 is 1 mark)

3 $f(x) = 4x - 9$. Find f(5).

(Total for Question 3 is 1 mark)

4 Simplify $(3x + 15)/3$.

(Total for Question 4 is 1 mark)

5 Write down the value of $4^{-1/2}$.

(Total for Question 5 is 1 mark)

6 $g(x) = x^2 + 3$, x is real. State the range of g.

(Total for Question 6 is 1 mark)

7 Express $10/\sqrt{5}$ in the form $k\sqrt{5}$, stating the value of k.

(Total for Question 7 is 2 marks)

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Mark scheme · 1.2 Pure: Algebra and Functions: 10-minute Pack

Question 1

$9x^8$ cao — **B1**

Answer: $9x^8$

Question 2

x = 11 or x = -11, both values cao — **B1**

Answer: x = 11 or x = -11

Question 3

11 cao — **B1**

Answer: 11

Question 4

x + 5 cao — **B1**

Answer: x + 5

Question 5

1/2 cao — **B1**

Answer: 1/2

Question 6

g(x) ≥ 3 oe — **B1**

Answer: g(x) ≥ 3

Question 7

multiplies numerator and denominator by $\sqrt{5}$ — **M1**

$2\sqrt{5}$, i.e. k = 2 cao — **A1**

Answer: $10/\sqrt{5} = 2\sqrt{5}$, k = 2

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