Unicorn Race: Quadratics 2

Time: 20 min Total: 13 marks

QUAD-2B

NAME or INITIALS (BLOCK CAPITALS, one letter per box)

ANSWERS — write each final answer in its box. Only these boxes are marked.

1

2

3

4

5

1 Factorise fully: **2 marks**

$$6x^2 + x - 2$$

answer in box 1 above

2 Solve: **2 marks**

$$x(x - 3) = 10$$

answer in box 2 above

3 Solve, giving exact answers: **3 marks**

$$x^2 - 4x + 1 = 0$$

answer in box 3 above

4 Solve: **3 marks**

$$x + \frac{1}{x} = \frac{5}{2}$$

answer in box 4 above

5 A rectangle has length $(x + 3)$ cm and width x cm. Its area is $40\,\text{cm}^2$. Find the value of x. **3 marks**

answer in box 5 above

Work in the space under each question. Only the answer boxes above are marked.