The Quadratic Formula
Exam Style Questions

1. Solve $x^2 + 7x + 4 = 0$

   Give your answers to 3 significant figures.

.... (3 marks)
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2. Solve $2x^2 + 5x + 1 = 0$

   Give your answers to 3 significant figures.

.... (3 marks)
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3. Solve $3x^2 + 7x + 1 = 0$

   Give your answers to 3 significant figures.

   ………………………….. (3 marks)

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4. Solve $x^2 - 8x + 2 = 0$

   Give your answers to 3 significant figures.

   ………………………….. (3 marks)

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5. Solve $3x^2 - 5x + 1 = 0$

   Give your answers to 3 significant figures.

   ………………………….. (3 marks)

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6. Solve $x^2 - 7x - 2 = 0$

Leave your answers in surd form.

………………………….. (3 marks)

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7. Solve $-x^2 - x + 1 = 0$

Leave your answers in surd form.

………………………….. (3 marks)

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8. Solve $7x + x^2 - 1 = 0$

Leave your answers in surd form.

………………………….. (3 marks)

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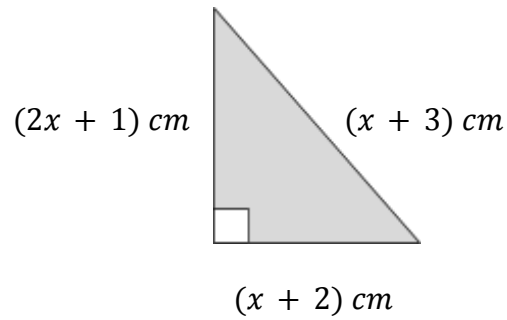9. Solve $2x^2 - 3x = 1$

   Give your answers to 3 significant figures.

   ………………………….. (3 marks)

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10. Solve $x^2 = 8x - 4$

   Give your answers to 3 significant figures.

   ………………………….. (3 marks)

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11. Below is a right-angled triangle with lengths $(2x + 1)cm$, $(x + 2)cm$ and $(x + 3)cm$.

$(2x + 1)$ cm $\qquad$ $(x + 3)$ cm

$(x + 2)$ cm
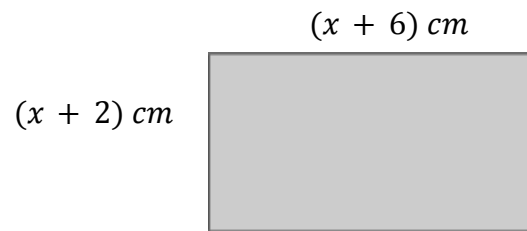
(a) Show that $2x^2 + x - 2 = 0$.

(2)

(b) Find the area of the triangle, giving your answer to 3 significant figures.

.... (3)

12. The area of the below rectangle is $9\ cm^2$.

$(x + 6)\ cm$

$(x + 2)\ cm$

(a) Show that $x^2 + 8x + 3 = 0$

(2)

(b) Hence, find the perimeter of the rectangle, giving your answer to 1 decimal place.

.... (3)

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