M1.

$(x - 4)(x + 8) = 0$

B1

[1]

M2.

(a) Positive

Do not allow if more than one answer selected

B1

(b) Negative

Do not allow if more than one answer selected

B1

(c) One positive and one negative

Do not allow if more than one answer selected

B1

(d) 0

Do not allow if more than one answer selected

B1

(e) $y = -3$

Do not allow if more than one answer selected

B1

[5]

M3.$(x - 2)$ or $(x - 4)$

$(x + 2)$ ***and*** *$(x + 4)$*

M1

$(x - 2)(x - 4)$

$(x + 2)(x + 4)$

M1dep

Evidence that brackets are expanded, ie $(x^2 - 2x - 4x +) 8$

or that the product of constant terms is taken.

Dependent on (x − 2)(x − 4)

M1dep

8

But not from (x + 2)(x + 4)
SC2 Answer only of 8.
Minimum working for full marks is –2 × – 4 = 8

A1

Alternative Method

$0 = 2^2 + 2a + b$ or $0 = 4^2 + 4a + b$

oe eg –4 = 2a + b

M1

Evidence that variable is eliminated

eg $2a + 12 = 0$

Evidence of balancing a eg 0 = 8 + 4a + 2b

M1dep

Evidence of substituting back into an equation

eg $0 = 4 + –12 + b$

Dependent on second M1 only.
Subtracting equations to eliminate a

M1dep

8

A1

[4]