M1.(a)   South   or   S

B1

(b)   North-East   or   NE

B1

[2]

M2.(a)   7.5 (cm)

[7.4, 7.6]

B1

their 7.5 × 25

their 7.5 must be ≤ 11

M1

[185, 190]

ft their 7.5 cm

A1ft

(b)   Correct bearing seen or implied

Line or point

M1

Point marked

2 mm tolerance

A1

[5]

M3.

4 × 5 rectangle

B1 for a rectangle with perimeter 18 cm
B1 for a rectangle with area 20 cm²

B2

[2]

M4.

(a)   75°

Any unambiguous indication

B1

(b)   075

Strand (i) Must have 0 as first digit
ft their (a)
Allow [073, 077]

Q1ft

[2]

M5.

(a)   120 + 90 + 120 + 90

oe

M1

420

A1

(b)   120 × 90 or 10 800

M1

their 10 800 × 4.15

M1

44 820

A1

45 000

ft if cost > 500 seen and correctly rounded to nearest 1000

B1ft

[6]

M6.[7.7, 7.9]

B1

their 7.8 × 50

M1

[385, 395]

A1ft

Additional Guidance

7 cm = 350 km is B0 M1 A1ft

[3]

M7.(a)   [068, 072]

Strand (i)

Q1

(b)   095

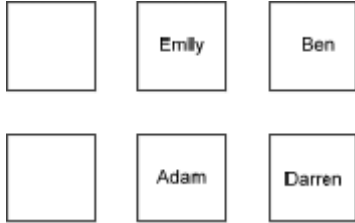*If both answers are correct apart from missing the leading zeros in (a) and (b) eg answers 70 and 95, award 0, 1*

B1

[2]

M8.

Emily	Ben	Cath

Adam	Darren	

B2 for 2 conditions met

B1 for 1 condition met

B3

Additional Guidance

	Emily	Ben

	Adam	Darren

Ben is North-East of Adam
Darren is South-East of Emily

Answer plan takes precedence over the plan at the top of the page, but this plan can be marked if the answer plan is blank

Name in each box takes precedence over names written above or below unless clearly crossed out

Allow abbreviated names

If a name appears twice then conditions involving that person can't be met

B2

[3]

M9.(a)   Zoo

Accept Z

B1

(b)   Hospital

Accept H

B1

(c)   [063, 067]

B1 for [63, 67] or 062 or 068
SC1 for [243, 247]

B2

[4]

M10. Bearing of 040° from Hospital

and

Bearing of 270° from Stadium

and

Location marked (lines cross)
> *B2 for one line in tolerance and other line intersecting*
> *or two lines in tolerance but not intersecting*
> *B1 for one line in tolerance*

B3

[3]

M11.
    (a)   [1.4, 1.6]
> *accept as ratio in form 1: [1.4, 1.6] or as × [1.4, 1.6]*
> *'increase by half' etc. B0*

B1

    (b)   18
> *ft 12 × their 14a*

B1ft

[2]

M12.
    5 × 1.5 (= 7.5)

M1

    7.5 ÷ 3 (= 2.5)

A1

    2.5 + 2.5 + 1.5 + 1.5 (= 8)
> *1.5 × 2.5 (= 3.75)*

M1

    Their 8 × 7.5

16 × their 3.75

M1dep

60

SC2 answer 67.5 (length = 2 × width)
SC1 answer 72

A1

[5]

M13.
    (a)   90

B1

    (b)   2 × 45 (= 90)
        or
        3 × 12 (= 36)
                oe, e.g.
                45 (+) 45
                or
                12 (+) 12 (+) 12
                or
                57 (+) 57
                or
                their (a) + 3 × 12

M1

        2 × 45 + 3 × 12 (= 126)
        or
        90 + 36 (=126)
                oe e,g,
                45 + 45 + 12 + 12 + 12
                57 + 57 + 12

A1

    (c)   45

B1

        45 − 12

$$\frac{their\ 90 - 2 \times 12}{2}$$
        oe eg,

M1

        33

*ft their x from **(a)** for 90*

A1ft

(d)   882 ÷ 126 (= 7)
or
8.82 ÷ their 1.26 (= 7)

M1

their 7 × 10 (× 2)
        oe e.g. their 7 × 5 (× 4)

M1

(small =) 140

A1

their 7 × 4 (× 2)
        oe e.g. their 7 × 2 (× 4)

M1

(large =) 56
        *SC4 70 and 28 **or** 35 and 14*
        as answer
        SC2 70 or 28 or 35 or 14
        as answer
        *SC2 **integer** values of small and large in the ratio 5 : 2 as*
        answer, e.g. 100 small and 40 large

A1

Alternative
882 × 180 (= 158760)
or
126 × 90 (= 11340)
        oe e.g. 882 × 90 (= 79380)
        or
        126 × 90 (= 11340)

M1

their 158760 ÷ their 11340 (= 14)
        oe e.g. their 79380 ÷ their 11340 (= 7)

M1

their 14 × 10
or
their 14 × 4
        oe e.g. their 7 × 10 (× 2)
        or

their 7 × 4 (× 2)

M1

(small =) 140

A1

(large =) 56

A1

[11]

M14.

(a)　10

Accept [9.8, 10.2]

B1

(b)　(*AB* =) 7.5 (cm)

Accept [7.3, 7.7]

B1

160 ÷ their 10 (= 16)

M1

their 7.5 × their 16

their 16 ≠ 10

M1

120

*ft their 10 in (a) (**must** score M2)*

A1ft

Alternative
(*AB* =) 7.5 (cm)

Accept [7.3, 7.7]

B1

their 7.5 ÷ their 10 (= 0.75)

oe

M1

their 0.75 × 160
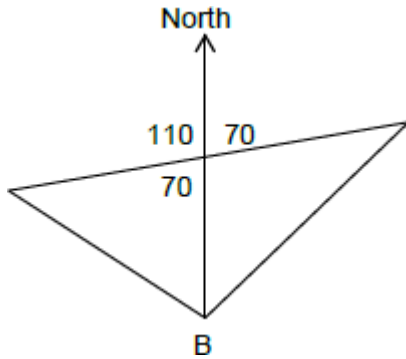
M1

120

*ft their 10 in (a) (**must** score M2)*

A1ft

[5]

M15.

(a)   110 seen

May be on diagram

B1

70 **or** 110 clearly identified as one of the angles shown

North

110 | 70

70

B

*ft their **obtuse** 110*

Must be clear which angle is worked out (eg seen on diagram)

B1ft

070

*ft their **obtuse** 110*

Q0 70

Strand (i)

SC3 Answer 070

SC2 Answer 70

Q1ft

(b) $8 \times \dfrac{1}{4}$ **or** $8 \div 4$ **or** 8×15 (= 120)

oe eg $8 \times \dfrac{15}{60}$

M1

[1.99, 2]

A1

[5]

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