Mark schemes

Q1.

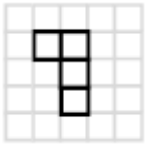
C

B1

[1]

Q2.

A



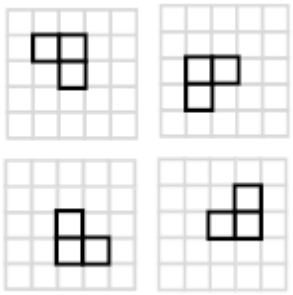
Only outline needed. Can be anywhere on grid
Internal lines not necessary (may be dashed)
Shape may be shaded (even in chequer-board fashion)

B1

Only outline needed. Can be anywhere on grid
Internal lines not necessary (may be dashed)
Shape may be shaded (even in chequer-board fashion)

B1

C



Any orientation (as shown)
Only outline needed. Can be anywhere on grid
Internal lines not necessary (may be dashed)
Shape may be shaded (even in chequer-board fashion)

B1

[3]

Q3.

Any product seen or implied of 2 numbers that make 12 or 15 or 20

M1

All three of 3, 4 and 5 stated or marked on diagram

M1dep

60

Answer only of 60 with no product seen is 3 marks

A1

3 × 4 × 5 or correctly evaluated product of their 3 sides, 2 of which must be correct

Strand (ii)

Product must be seen

Q1

Alternative method

Any one of 3, 4 or 5 seen on diagram (correctly for the net) or any sides of cuboid

M1

Side found and corresponding cross-section identified

M1dep

60

Answer only of 60 with no product seen is 3 marks

A1

Correct side and cross-section multiplied, ie 5 × 12 or 4 × 15 or 3 × 20

Strand (ii)

Product must be seen

Q1

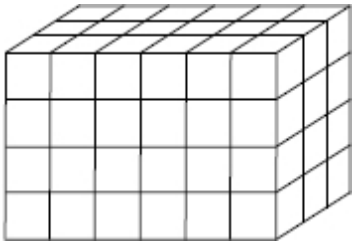
Additional Guidance
Beware of 60 from incorrect work.
No incorrect work and answer of 60 is 3 marks
1 side correct maximum 1 mark
2 sides correct maximum 2 marks
Use positive marking.

[4]

Q4.

3, 4 and 6 chosen

May be implied from a diagram



M1

72

A1

[2]

Q5.

Fully correct sketch any orientation using grid

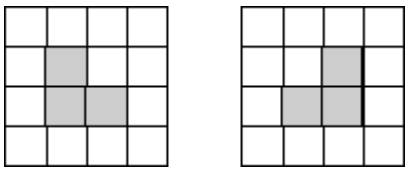
B1 for at least 1 correct face

B2

[2]

Q6.

(a)



Drawings can be anywhere on the grids
B1 for shapes reversed
or B1 for one correct

B2

(b) 6 × 2 + 3

or 4 + 7 + 4

or 2 + 2 + 2 + 2 + 7

or 28

or 13

M1

15

SC1 for 17

A1

[4]

Q7.

(a) Cube

B1

Additional Guidance

Cuboid

B0

(b) Sphere

B1

Additional Guidance

Accept misspelling as long as intention to indicate sphere

B1

Spherical

B0

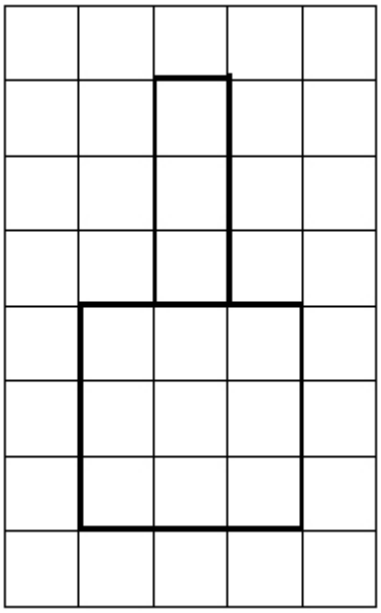
Ball

B0

[2]

Q8.

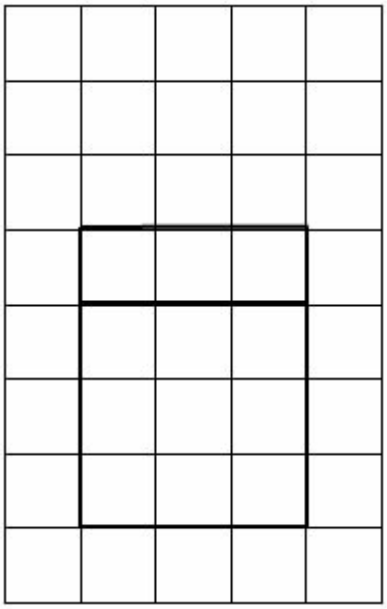
(a)



Mark intention
3 cm by 3 cm square with 1 cm by 3 cm rectangle positioned centrally above
Must be correct size and orientation but can be anywhere on the grid

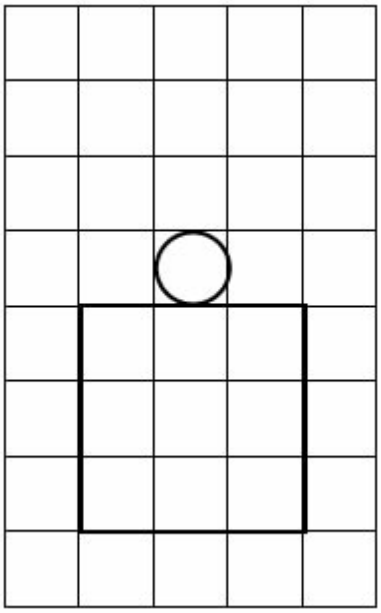
B1

(b)



Mark intention
3 cm by 3 cm square with 3 cm by 1 cm rectangle above
Must be correct size and orientation but can be anywhere on the grid
Elevations may be on either grid

B1



Mark intention
3 cm by 3 cm square with circle diameter
1 cm positioned centrally above
Must be correct size and orientation but
can be anywhere on the grid
Elevations may be on either grid

B1

[3]

Q9.

6 seen

May be on diagram

B1

tan 70 = $\frac{h}{(their 6) \div 2}$

oe, x being an equal side of isosceles triangle

sin 20 = $\frac{3}{x}$

cos 70 = $\frac{3}{x}$

$\frac{6}{\sin 40} = \frac{x}{\sin 70}$

M1

(h =) [8.2, 8.3]

[8.7, 8.8] eg 8.77

A1ft

$\frac{1}{2}$ × their 6 × their h

M1

$\frac{1}{2}$ × *their 6 × their 8.77 × sin 70*

or $\frac{1}{2}$ × *their* 8.77^2 × *sin 40*

[24.3, 24.9]

A1ft

[5]