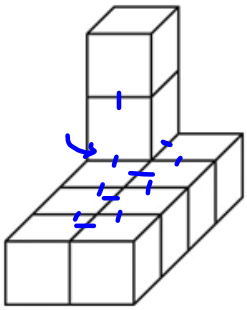
Each cube has an edge length of 1 unit. Determine the surface area of the following composite object. Show all work.



SA 1 face = 1x1
= 1 unit²

SA = (# faces − overlap(x2)) x 1
= (10x6 − 12x2) x 1
= (60-24) x 1
= (36) x 1
= 36 unit²

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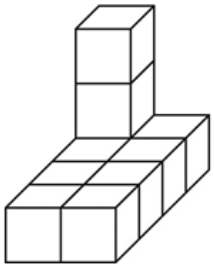
Each cube has an edge length of 1 unit. Determine the surface area of the following composite object. Show all work.



Top = 8
Bottom = 8
Front = 4
Back = 4
Left = 6
Right = 6

Total Visible Faces = 36

∴ S.A. = 36 square units

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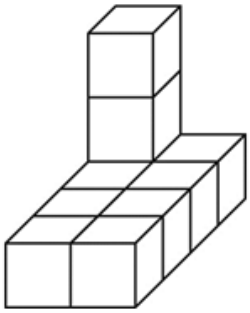
Each cube has an edge length of 3 units. Determine the surface area of the following composite object. Show all work.



S.A. = [(# cubes x 6) x (bh)] − [(# overlaps x 2) x (bh)]

= [(10 x 6) x (3 x 3)] − [(12 x 2) x (3 x 3)]

= (60 x 9) − (24 x 9)

= 540 − 216

= 324 square units

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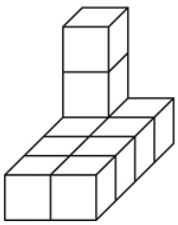
Each cube has an edge length of 3 units. Determine the surface area of the following composite object. Show all work.



Top = 8
Bottom = 8
Front = 4
Back = 4
Left = 6
Right = 6

Total Visible Faces = 36

S.A. = Visible Faces x bh
= 36 (3 x 3)
= 36 (9)
= 324 square units

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