

# Count on Us Secondary Schools Challenge FINAL 2020

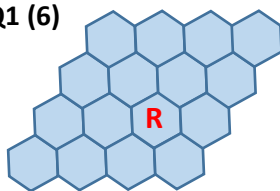
## Answer Sheet



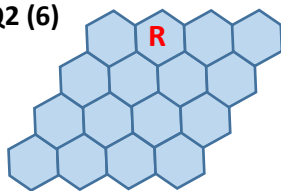
Round 1a: Game of Hex Score 6 points per puzzle.

*(There may be alternative answers)*

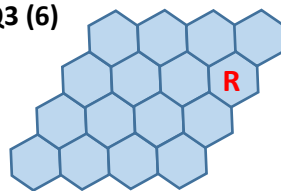
Q1 (6)



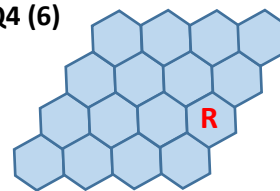
Q2 (6)



Q3 (6)



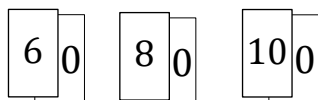
Q4 (6)



Round 1b: Gridline Geometry

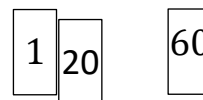
Score more points for higher level (score in brackets)

Q1 (4)



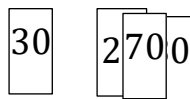
$6/70=60$   $8/30=80$   $10/50=100$

Q2 (5)



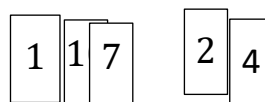
$1/20=120$  60

Q3 (7)



30  $20/70/80=2700$

Q4 (8) Any  $x$  and  $y$  with  $x + y = 141^\circ$  e.g.



$1/10/7=117$   $2/4=24$

*(there are many different ways to makes the 2700)*

Round 2: 24®Game

Score one point per dot (Score in brackets)

Q1 (1)

$(7 + 1) \times (6 \div 2)$

Q2 (1)

$(8 - 6) \times (6 \times 2)$

Q3 (2)

$(7 \times 3) + (7 - 4)$

Q4 (2)

$(23 - 4) + (16 - 11)$

Q5 (3)

$(22 + 16) - (12 + 2)$

Q6 (3)

$((24 + 6) \div 15) \times 12$

Q7 (1)

$(9 - 8) \times (-3 \times -8)$

Q8 (1)

$(7 - -7) + (-2 \times -5)$

Q9 (2)

$(7 - -1) \times (9 - 6)$

Q10 (2)

$((4 - -2) \times 5) + -6$

Q11 (3)

$((-5 + -8) \times -2) - 2$

Q12 (3)

$((9 + -5) + 4) \times -3$

Q13 (1)

$(5 - 3) \div (\frac{1}{3} \times \frac{1}{4})$

Q14 (1)

$(19 + 2) \times (0.8 \div 0.4)$

Q15 (2)

$4 \div ((\frac{3}{8} \div \frac{3}{8}) - \frac{5}{6})$

Q16 (2)

$(12 + 4) + (5.4 \div 0.6)$

Q17 (3)

$(9 \times 5) - (7 \div \frac{1}{3})$

Q18 (3)

$(6.5 - (2 \div 1)) \times 4$

Round 3: Record the decoded responses Write them in any order in the boxes. 6 Points each.

1838	221b Baker Street
1819	Fruit and vegetables
1946	Victoria and Albert
Commons and Lords	Norman