

Y5 Homework 30 Answer Key

English

Section 1 – Comprehension (Q1–23)

1. C
2. B
3. C
4. B
5. E
6. C
7. B
8. C
9. B
10. C
11. A
12. B
13. B
14. D
15. B
16. B
17. C
18. C
19. B
20. C
21. B
22. C
23. C

Section 2 – Punctuation (Q24–31)

24. E
25. A
26. B
27. E
28. B
29. A
30. B
31. E

Section 3 – Spelling (Q32–40)

32. E
33. C
34. B
35. E
36. A
37. C
38. E
39. A
40. C

Section 4 – Grammar & Vocabulary Cloze (Q41–49)

41. B
42. A
43. B
44. C
45. A
46. B
47. B
48. C
49. A

Maths

50. E
51. D
52. C
53. C
54. C
55. C
56. A
57. C
58. A
59. B
60. D
61. C
62. B
63. B
64. C
65. C

66. C
67. D
68. C
69. B
70. C
71. C
72. D
73. D
74. C
75. C
76. D
77. A
78. D
79. C
80. C
81. D
82. C
83. A
84. D
85. C
86. D
87. D
88. C
89. B

and one is 128, so E is the odd one out.

51. Convert 3.6 kg to grams: $3.6 \text{ kg} = 3600 \text{ g}$. Divide 3600 by 150 to find the number of complete 150 g portions: $3600 \div 150 = 24$. So she can make 24 complete portions. The correct answer is D.
52. Add the flight time to the departure time in City A. From 18:40, adding 11 hours gives 05:40 the next day, and adding 20 minutes gives 06:00 in City A. City B is 2 hours behind, so subtract 2 hours: $06:00 - 2 \text{ hours} = 04:00$. The correct answer is C.
53. The recipe uses 120 g of flour for 8 pancakes, so each pancake needs $120 \div 8 = 15 \text{ g}$. With 900 g of flour, the number of pancakes is $900 \div 15 = 60$. The correct answer is C.
54. The larger rectangle has area $6 \times 5 = 30 \text{ m}^2$. The total area is 54 m^2 , so the smaller rectangle has area $54 - 30 = 24 \text{ m}^2$. Let its width be w and its length be $w + 2$. Then $w(w + 2) = 24$, so $w^2 + 2w - 24 = 0$, which factors as $(w + 6)(w - 4) = 0$. Thus $w = 4$ and the length is 6. The perimeter is $2(4 + 6) = 20 \text{ m}$. The correct answer is C.

55. Let the first term be x . The second term is $3x + 1$. The third term is $3(3x + 1) + 1 = 9x + 4$. We are told the third term is 76, so $9x + 4 = 76$. Then $9x = 72$ and $x = 8$. The correct answer is C.
56. Convert all values to decimals. $7/10 = 0.7$, $64\% = 0.64$, and the decimals are 0.63 and 0.68. In order from smallest to largest: 0.63, 0.64, 0.68, 0.7. In the original forms this is 0.63, 64%, 0.68, $7/10$. The correct answer is A.
57. At a scale of 1:50 000, 1 cm on the map represents 50 000 cm in reality. For 6 cm, the actual distance is $6 \times 50\,000 = 300\,000 \text{ cm}$. Convert to kilometres: $300\,000 \text{ cm} = 3000 \text{ m} = 3 \text{ km}$. The correct answer is C.
58. P(1,2) and R(7,8) are opposite corners of a square with sides parallel to the axes. From P to R, the x and y coordinates both increase by 6, so the side length is 6. The vertex Q must be 6 units to the right of P with the same y -coordinate: $(1 + 6, 2) = (7, 2)$. The other vertex is S(1, 8). The correct answer is A.

Worked Solutions

50. Evaluate each expression: $2^6 = 64$, $4^3 = 64$, $8^2 = 64$, and $2^4 \times 4 = 16 \times 4 = 64$. The last expression is $2^5 \times 4 = 32 \times 4 = 128$. Four answers are 64

59. First find the number who walk:
 25% of 180 is $0.25 \times 180 = 45$. The number who cycle is $180 - 72 - 45 = 63$. The difference between those travelling by car and by bicycle is $72 - 63 = 9$. The correct answer is B.
60. For a 12-sided polygon, $n = 12$. The sum of interior angles is $(12 - 2) \times 180^\circ = 10 \times 180^\circ = 1800^\circ$. In a regular polygon all angles are equal, so each angle is $1800^\circ \div 12 = 150^\circ$. The correct answer is D.
61. Convert prices to pence. Box A: $\pounds 3.30 = 330\text{p}$; price per bar is $330 \div 15 = 22\text{p}$. Box B: $\pounds 4.56 = 456\text{p}$; price per bar is $456 \div 24 = 19\text{p}$. Each bar in Box B is $22\text{p} - 19\text{p} = 3\text{p}$ cheaper. The correct answer is C.
62. The primes between 40 and 60 are 41, 43, 47, 53 and 59. We need a prime whose tens digit is even and whose digit sum is 7. 41 has sum $4 + 1 = 5$, 43 has sum $4 + 3 = 7$, 47 has sum 11, and the others have odd tens digits. So the number is 43. The correct answer is B.
63. Reflect $P(-2,4)$ in the y-axis to get $Q(2,4)$ (the x-coordinate changes sign). Then translate 1 unit right and 3 units down: x becomes $2 + 1 = 3$, y becomes $4 - 3 = 1$. So R is (3,1). The correct answer is B.
64. The volume of the tank is $50 \times 25 \times 40 = 50\,000\text{ cm}^3$. The tank is 60% full, so the volume of water is $0.60 \times 50\,000 = 30\,000\text{ cm}^3$. Converting to litres gives $30\,000 \div 1000 = 30$ litres. The correct answer is C.
65. Add the visitor numbers: $210 + 260 + 310 + 290 + 360 + 480 + 440 = 2350$. Divide by 7 to find the mean: $2350 \div 7 \approx 335.7$. Rounded to the nearest ten this is 340. The correct answer is C.
66. A 20% reduction means the sale price is 80% of $\pounds 9\,600$: $0.8 \times 9\,600 = \pounds 7\,680$. The deposit is 15% of $\pounds 7\,680$: $0.15 \times 7\,680 = \pounds 1\,152$. The correct answer is C.
67. The numbers 64, 125, 216, 343 and 512 are 4^3 , 5^3 , 6^3 , 7^3 and 8^3 . The missing term is $7^3 = 343$. The correct answer is D.
68. Red:blue = 4:3 and blue:yellow = 5:2. Make the blue numbers match by using a common multiple of 3 and 5, which is 15. Multiply the first ratio by 5 to get red:blue = 20:15. Multiply the second ratio by 3 to get blue:yellow = 15:6. So red:blue:yellow = 20:15:6. If 20 units correspond to 60 red counters, then 1 unit is 3 counters and yellow is $6 \times 3 = 18$. The correct answer is C.
69. Convert the Roman numerals to numbers. MDCCL = 1750, DCCLX = 760, MCCXXX = 1230. Add the first two: $1750 + 760 = 2510$. Subtract the third: $2510 - 1230 = 1280$. Write 1280 in Roman numerals: $1000 + 200 + 80 = \text{M} + \text{CC} + \text{LXXX} = \text{MCCLXXX}$. The correct answer is B.
70. Amira pays no tax on the first $\pounds 11\,000$. The taxable portion is $31\,500 - 11\,000 = \pounds 20\,500$. She pays 20% of this: $0.2 \times 20\,500 = \pounds 4\,100$. The correct answer is C.
71. Each square has area $7 \times 7 = 49\text{ cm}^2$. Without overlap, they would cover $2 \times 49 = 98\text{ cm}^2$. The overlapping 15 cm^2 region has been counted twice, so subtract one copy: $98 - 15 = 83\text{ cm}^2$. The correct answer is C.
72. From 10:05 to 15:10 is 5 hours 5 minutes. The break is 25 minutes long, so the active working time is $5\text{ hours } 5\text{ minutes} - 25\text{ minutes} = 4\text{ hours } 40\text{ minutes}$. The correct answer is D.

73. Convert 2.7 m to centimetres: $2.7 \text{ m} = 270 \text{ cm}$. After cutting 90 cm, $270 - 90 = 180 \text{ cm}$ remain. One third of 180 cm is 60 cm, which is used. Ribbon left is $180 - 60 = 120 \text{ cm}$. The correct answer is D.

74. The minibus travels 84 miles on 7 litres, so it does $84 \div 7 = 12$ miles per litre. For 180 miles it needs $180 \div 12 = 15$ litres. The tank already holds 10 litres, so an extra $15 - 10 = 5$ litres are needed. The correct answer is C.

75. First find a^2 : $a^2 = 4.2 \times 4.2 = 17.64$. Then $3a^2 = 3 \times 17.64 = 52.92$. Next find $2b$: $2 \times 1.3 = 2.6$. Finally $3a^2 - 2b = 52.92 - 2.6 = 50.32$. The correct answer is C.

76. In any quadrilateral the interior angles sum to 360° . Let angle at P be x and angle at R also be x . Angles at Q and S are 130° each. So $x + x + 130 + 130 = 360$, giving $2x + 260 = 360$, so $2x = 100$ and $x = 50^\circ$. Angle QPS is the angle at P, so it is 50° . The correct answer is D.

77. Work out each expression.

A: $250 \times 19 = 4750$

B: $600 \div 0.5 = 1200$

C: $1200 \times 0.9 = 1080$

D: $75 \times 32 = 2400$

E: $1800 \div 0.4 = 4500$

The largest value is 4750 from option A. The correct answer is A.

78. Think around the outside of the L-shape. Start at the bottom-left corner and go along the bottom: 14 cm. Go up the right-hand side until the cut-out: $10 - 3 = 7 \text{ cm}$. Go left along the top of the cut-out: 4 cm. Go up the rest of the right-hand side of the cut-out: 3 cm. Go left along the top edge: $14 - 4 = 10 \text{ cm}$. Finally go down the left-hand side: 10 cm. Add these: $14 + 7 + 4 + 3 + 10 + 10 = 48 \text{ cm}$. The correct answer is D.

79. If $\pounds 4 = \pounds 4.80$, then $\pounds 1$ is worth $\pounds 4 \div 4.8 \approx \pounds 0.833\ldots$. For $\pounds 60$, multiply $60 \times \pounds 0.833\ldots \approx \pounds 50$. So you would get about $\pounds 50$. The correct answer is C.

80. Five minutes is $5 \times 60 = 300$ seconds. The machine prints 75 labels every 25 seconds, so the number of complete 25-second intervals is $300 \div 25 = 12$. It prints $12 \times 75 = 900$ labels. The correct answer is C.

81. Let the original number be x . The operation is $0.8x + 1.6 = 13.6$. Subtract 1.6 from both sides to get

$0.8x = 12$. Then $x = 12 \div 0.8 = 15$. The original number was 15. The correct answer is D.

82. A full circle of 360° represents 180 pupils, so 1 pupil corresponds to $360 \div 180 = 2^\circ$. Football is 132° , so pupils choosing football = $132 \div 2 = 66$. Athletics is 60° , so pupils choosing athletics = $60 \div 2 = 30$. The difference is $66 - 30 = 36$ pupils. The correct answer is C.

83. In a parallelogram, opposite sides are parallel and equal. If A, B, C, D are in order, then vector AD must equal vector BC. Another method is to use coordinates: $D = A + C - B$. Here $A(1,3)$, $B(4,7)$ and $C(9,7)$ give $D = (1 + 9 - 4, 3 + 7 - 7) = (6,3)$. This matches option A. The correct answer is A.

84. A cube with volume 64 cm^3 has side length 4 cm because $4 \times 4 \times 4 = 64$. Stacking two cubes gives a cuboid 4 cm by 4 cm by 8 cm. The surface area is $2(lw + lh + wh) = 2(4 \times 4 + 4 \times 8 + 4 \times 8) = 2(16 + 32 + 32) = 2 \times 80 = 160 \text{ cm}^2$. The correct answer is D.

85. The scheduled arrival is 09:52. Being 23 minutes late means the actual arrival time is $09:52 + 23$

minutes = 10:15. The journey lasted 2 hours 48 minutes.

Subtract: $10:15 - 2 \text{ hours} = 08:15$, then $08:15 - 48 \text{ minutes} = 07:27$.

The correct answer is C.

86. If the mean of five numbers is 21, then their total is $5 \times 21 = 105$. The four known numbers sum to $12 + 27 + 19 + 16 = 74$. The fifth number is $105 - 74 = 31$. The correct answer is D.

87. A 3.6-litre container holds $3.6 \times 1000 = 3600$ ml. At 60 ml per hour, the time to fill is $3600 \div 60 = 60$ hours. The correct answer is D.

88. First increase £200 by 10%. Ten percent of 200 is £20, so the new price is $200 + 20 = £220$. Then decrease £220 by 15%. Fifteen percent of 220 is $0.15 \times 220 = £33$. The final price is $220 - 33 = £187$. The correct answer is C.

89. In 5.709, the digit 7 is in the tenths place, giving a value of 0.7. The digit 9 is in the thousandths place, giving a value of 0.009. The difference is $0.7 - 0.009 = 0.691$. The correct answer is B.

90. B – “class and”

Hidden word: SAND

“clasS AND” gives s + and = **sand**.

No other adjacent pair hides a four-letter English word.

91. D – “new avenue”

Hidden word: WAVE

“neW AVenue” gives w + ave =

wave. No other pair forms a common four-letter word.

92. increase and reduce

“Increase” means to make something larger; “reduce” means to make it smaller.

“Tidying” is not the opposite of “confuse”, and “describe” is not opposite to “remember”, so the only true opposite pair is **increase/reduce**.

93. rare and common

“Rare” = not often found.

“Common” = found frequently.

These are clear opposites.

“Useful” is not opposite to “hurtful” or “careless”, and “hopeful” is not opposite to any word in the second group.

94. support and oppose

“Support” means to back or help something. “Oppose” means to be against it.

“Guess/clarify” and “explain/benefit” do not form antonym pairs, so **support/oppose** is the only correct opposite pair.

Section 2

95. C – letter d

car + d = **card**, d + iver = **diver**

hea + d = **head**, d + ose = **dose**

No other letter produces four real English words.

96. A – letter m

tea + m = **team**, m + ake = **make**

roo + m = **room**, m + ore = **more**

The other letters do not give four correct words.

97. C – ZA

Pattern from AZ → BY:

A → X = -3, Z → C = +3.

Apply to CX: C -3 = Z, X +3 = A →

ZA.

98. A – QS

Pattern from CE → GI: each letter moves **forward 4** places (C→G, E→I).

Apply to MO: M +4 = Q, O +4 = S →

QS.

99. B – CN

Pattern from KT → AV:

E → U is **10 letters back**, T → B is **8 letters forward**.

Apply this to MF:

M back 10 → C, F forward 8 → N → **CN**.

106. C

107. B

108. A

109. A

110. D

111. B

112. E

113. D

114. A

115. A

116. C

117. B

118. C

119. D

120. D

121. A

122. D

123. A

124. D

125. C

126. B

127. D

128. A

Section 3

100. C – 7

Left-hand side: $5 \times 9 + 4 = 45 + 4 =$
49.

Right-hand side: $7 \times 8 - [?] = 56 -$
[?].

To make $56 - [?] = 49$, we need [?]
= 7.

101. B – 3

Left-hand side: $12 \times 4 - 10 = 48 -$
10 = **38**.

Right-hand side: $5 \times 7 + [?] = 35 +$
[?].

To make $35 + [?] = 38$, we need [?]
= 3.

102. D – pace

103. E – ice

104. B – part

Non Verbal Reasoning

105. E