TEST 1

Question Number	Answer	Marks
1	**8991**	1
2	**3710**	1
3	**Method 1:** $7\frac{1}{2} + 2\frac{3}{8} = \frac{15}{2} + \frac{19}{8} = \frac{60+19}{8} = \frac{79}{8} = \mathbf{9\ \frac{7}{8}}$ **Method 2:** (7+2=9), ($\frac{1}{2} + \frac{3}{8} = \frac{4+3}{8} = \frac{7}{8}$), 7+ $\frac{7}{8}$ = $\mathbf{7\frac{7}{8}}$	1
4	**205**	1
5	Gaps increasing by 3, 6, 9 etc. Next gap would be 12 therefore 19+12 = **31**	1
6	Equilateral triangle has three equal angles that add up to 180°. (180/3) = **60°**	1
7	**5, 36**(9x4)**, 5**(8x5=40), **36**(6x6)	4
8	**2.35** since the 7 after 4 is greater than 5	1
9	($\frac{1}{32} + \frac{1}{64} = \frac{2+1}{32} = \frac{3}{64}$) Therefore x = **3**	2
10	5y = 25, y=**5**	2
11	Mean = $\frac{Total\ marks}{Toal\ students} = \frac{42}{7}$ = **7 marks** Median = $\frac{7}{2} = 3.5$, therefore the median lies between 3rd and 4th term = **7** Modal = **7 marks** (7 marks was the most common score)	1 1 1
12	Average = $\frac{Total\ pocket\ money}{total\ no.of\ boys} = \frac{75}{5} = \mathbf{£15}$	2
13	Cost = 200 + 35(6-1), = 200 + 175 = **£375**	1
14	**58351**	2
15	100-40=60% left, 60% of 870 = $\frac{60}{100}$ x $87\cancel{0} = \mathbf{522}\ hec$	2
16	x – 6 – 4 = **x - 10**	2
17	20.30 – 2.08 = **18.22**	1
18	One book costs $\frac{20}{5} = 4$ 8 books cost 4 x 8 = **£32**	1
19	Probability = $\frac{Number\ of\ white\ cubes}{Total\ no.of\ shapes} = \frac{10}{38} = \mathbf{\frac{5}{19}}$	2
20	Total angle in the pie chart = 360°, 25% is a quarter, therefore $\frac{360}{4} = \mathbf{90°}$	2
21	Percentage = $\frac{16}{64}$ x 100 = **25%**	1
22	**7.56**	1
23	Average max temp = $\frac{Combined\ temperature}{Number\ of\ days} = \frac{140}{7} = \mathbf{20°}$	2
24	Maths = 100 – 15 – 30 – 35 = **20%**	2
25	Area of parallelogram = Length x Height = 6 x 9 =**54m^2**	2

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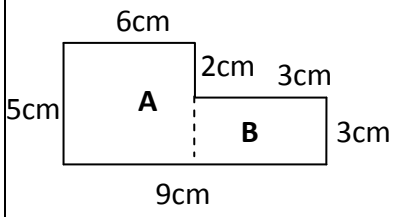
TEST 2

Question Number	Answer	Marks
1	**2274**	1
2	**8903**	1
3	**10.14**	1
4	**112.4 or 112.5**	1
5	The gaps increased by 5, 7, 9. The next gap would be 11. Therefore 26+11=**37**	1
6	**7, 45**(9x5)**, 8**(8x5=40), **49**(6x6)	4
7	**9.0**	1
8	$\frac{2}{16}+\frac{2}{32}=\frac{4+2}{32}=\frac{6}{32}$ Therefore x=**6**	1
9	5x = 30, therefore x=**6**	1
10	If mean is 4, then total cans drunk in 7 days is: 7x4=28 Total except wed = 23 Wed = 28-23=**5 cans**	1
11	Average = $\frac{Total\ goals\ score}{To\ no.of\ players}=\frac{130}{5}=$ **26 goals**	1
12	**38351**	1
13	Cost = 120+15(8-1) = 120+(15x7) = 120+105 = **£225**	2
14	30% of 140 = $\frac{30}{100}$ x14~~0~~ = 3x14 = **42m²**	1
15	Currently jack is 24-6=18 years old, 3 years ago he was 18-3= **15 years old**	2
16	 Perimeter = 6+2+3+3+9+5=**28cm** Area A= 5x6=30 Area B= 3x3=9 Total area = 30+9=**39cm²**	1 1
17	Range = Largest – Smallest = 16.80-3.09 = 13.71	2
18	Cost per chair = $\frac{120}{8}=15$ Cost for 9 chairs = 15 x 9 = **£135**	6
19	Probability = $\frac{No.of\ blue\ squares}{Total\ no.of\ shapes}=\frac{9}{42}=\mathbf{\frac{3}{14}}$	2
20	Horror = 100% -(8-8-11-14-14-18)= 100-73 = **27%**	2
21	**12.54**	1
22	Percentage = $\frac{Shaded}{Total}=\frac{12}{48}$x100 =**25%**	2
23	(a). 18+19+19+21 = 77, Average=$\frac{77}{4}=\mathbf{19.25°C}$ (b). 25-18=**7°C**	2 1
24	Volume of triangle prism = (6x8x2)/2= **48cm³**	2
25	X=3(-7-3) = 3x(-10) = **-30**	2
26	Spinning 3 times more would generate three times more chance of showing blue, therefore 12x3=**36**	1
27	X-coordinates = $\frac{4+8}{2}=\frac{12}{2}=6$ | y-coordinates = $\frac{5+9}{2}=\frac{14}{2}=7$, **(6,7)**	1
28	**1,2,5,10**	1
29	(a). 360 – (125x2)=360-250=110. 110/2=**55°** (b). **125°** since they are opposite to each other (c). **55°** same as a	1 1 1

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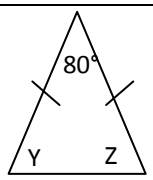
TEST 3

Question Number	Answer	Marks
1	**2390**	1
2	**7800**	1
3	**6.43**	1
4	**83.5**	2
5	**36, 49** - square numbers	1
6	**11.36**	1
7	2+10=7x-3x, 12=4x, x=$\frac{12}{4} = \mathbf{3}$	2
8	**Mean** = $\frac{Total\ Ages}{(Number\ of\ students)} = \frac{6+7+8+6+9+10+7+8+6+5+5}{11} = 88/11 =$ **8** **Median** = $\frac{Number\ of\ students}{2} = \frac{11}{2} = 5.5$, therefore 6th age= **8 years** **Modal =** most common = **6**	2 1 1
9	**67**	1
10	Area of path = Total area – area of lawn = (7x9)-(5x6) = 63 – 30 = **33cm^2**	2
11	28.2-2.82 = **25.38**	2
12	**30,-30**	2
13	Area of trapezium = $\frac{1}{2}$(a+b)xh = 0.5x12x5 = **30 cm^2**	2
14	Ave = $\frac{Total\ runs\ scored}{Total\ matches} = \frac{290}{5} = \mathbf{58}$	1
15	25% of 160 = $\frac{25}{100} \times 160 = \boldsymbol{40m^2}$	2
16	**120°, 120°**	2
17	Current age = x-5, age four years ago = x-5-4, **x-9**	1
18	**Range** = Largest – Smallest = 17.8-4.09 = **13.71**	1
19	Probability = $\frac{Green\ shapes}{Total\ shapes} = \frac{28}{52} = \frac{\mathbf{7}}{\mathbf{13}}$	2
20	Each ticket = $\frac{50{,}000}{20} = £2500$ Four tickets = 2500x4=**£10,000**	2
21	**11hrs 41mins**	1
22	6+8+6+5=**25** Sat – Tue = 15-8 = **7**	2
23	**4.5275**	1
24	**8**	1
25	 Isosceles triangle has two equal sides **Y = Z = 50°** since total angles add up to 180°	1
26	Volume = 4x2x8 = 64cm^3, therefore **64** cubes can fit in	2
27	360° = 100%, x°=40%, x=$\frac{\cancel{40}x36\cancel{0}}{\cancel{100}} =$**144°**	1
28	80cl = 10ml, 80cl=800ml, Full glasses = $\frac{800}{150} = 5.33$, **5** full glasses	2

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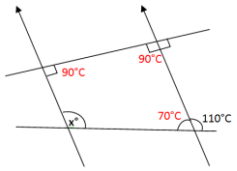
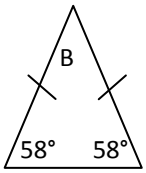
TEST 4

Question Number	Answer	Marks
1	**469**	1
2	**4123**	1
3	**40**	1
4	**5.22**	1
5	$\mathbf{8\frac{7}{10}}$ or **8.7**	1
6	**63** (previous term x2 then +1)	1
7	40 x 4 = **160mins** or **2hr 40min**	1
8	5.5litre = 5500ml, per cylinder = $\frac{5500}{11} = \mathbf{500}$	2
9	1% of 1400 = 14, 60% of 1400 = 14x60 = **840**	1
10	**7.2** (Each segment is 0.1)	1
11	Area of path = Total area – Lawn area = (8x12)-(8x4) = 96-32 = **64**	2
12	% = $\frac{(\text{Black pens\&}pencils)}{Total} x100 = \frac{(30+22)}{30+18+30+22} x100 = \frac{52}{100} x100 = \mathbf{52}$	2
13	Average = $\frac{Total\ temp}{no\ of\ days} = \frac{25+23+21+26+20}{5} = \frac{115}{5} = \mathbf{23}$	2
14	Area = Length x width, Re-arranging gives L = $\frac{A}{w} = \frac{48}{3} = \mathbf{16}$	1
15	**D** or (-25 and -9)	
16	 Total angles inside = 360° 360-90-70-90=**110°**	2
17	If 30% means 60 jackets, then 1% means 2 jackets, hence 22% = **44** jackets	2
18	**64**	2
19	**a) 23, b) 42**(7x6)**, c) 6**(6x5)**, d) 64**(8x8)	4
20	**8hr 32mins**	1
21	If mean = 4, then in 7 days 28 dogs were seen. Fri = 28-6-3-1-7-3-2=**6**	2
22	 Isosceles triangle has two equal sides **B = 64°** since total angles add up to 180°	2
23	**C**	2
24	7x+x = 29-5, 8x =24, x = $\frac{24}{8} = \mathbf{3}$	2
25	Not shaded = $\frac{36}{48} = \frac{3}{4} = \mathbf{75\%}$	2
26	1 pen costs = $\frac{40.40}{10} = 4.04$, 8 pens cost = 4.04x8=**£32.32**	2
27	70% don't like smoking, 1% of 1200 = 12, 70% = 12x70 = **840**	1
28	$\frac{1}{45} + \frac{1}{90} = \frac{2+1}{90} = \frac{3}{90} = \frac{1}{30}$ therefore y = **30**	2

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