

National 5 Assessment		January	Marking Scheme
Question	Answer	Mark	Comment
1a	4.41 million	4	<ul style="list-style-type: none"> <li>evidence of 0.955</li> <li>correct multiplier of <math>0.955^4</math></li> <li>carry out calculation</li> <li>correct rounding</li> </ul>
1b	16.8% reduction	2	<ul style="list-style-type: none"> <li>reduction = 0.89(15....)</li> <li>correct calculation</li> </ul>
2	43	2	<ul style="list-style-type: none"> <li>start process / substitution</li> <li>correct answer</li> </ul>
3a.	$(x + 4)^2 - 21$	2	<ul style="list-style-type: none"> <li>evidence of <math>((x + 4)^2)</math></li> <li>evidence of <math>-21</math></li> </ul>
3b.	$x = -4$	1	<ul style="list-style-type: none"> <li>award 1 or 0</li> </ul>
4.	$m = -4/3 ;$ $c = -6 \text{ or } (0, -6)$	2	<ul style="list-style-type: none"> <li>correctly rearrange to <math>y = mx + c</math></li> <li>correctly state and <math>m</math> and <math>c</math></li> </ul>
5	1870 calories	3	<ul style="list-style-type: none"> <li>start process with 115% or 1.15</li> <li>evidence of correct scaling/division</li> <li>correct answer (ignore rounding)</li> </ul>
6a.	$(2x - 5)(x + 4)$	2	<ul style="list-style-type: none"> <li><math>(2x - 5)</math></li> <li><math>(x + 4)</math></li> </ul>
6b.	$\frac{(2x + 5)}{(x + 4)}$	2	<ul style="list-style-type: none"> <li><math>(2x + 5)(2x - 5)</math></li> <li>Evidence of correct simplifying</li> </ul>
7.	$x^3 + 4x^2 - 11x - 30$	3	<ul style="list-style-type: none"> <li>Correctly multiply out 2 brackets</li> <li>Correctly multiply out 3<sup>rd</sup> bracket</li> <li>Correct final answer</li> </ul>
8a.	$9pq^{-4}$	2	<ul style="list-style-type: none"> <li>evidence of 9 or <math>p</math> or <math>q^4</math></li> <li>correct answer</li> </ul>
8b.	$\frac{3\sqrt{2}}{2}$	3	<ul style="list-style-type: none"> <li>begin process</li> <li>express with rational denominator</li> <li>simplify</li> </ul>
9	$4y = -5x + 42$	3	<ul style="list-style-type: none"> <li><math>m = -\frac{5}{4}</math></li> <li>begin process with either point</li> <li>correct answer</li> </ul>
10a.	$2s + 3l = 15$	1	<ul style="list-style-type: none"> <li>award 1 or 0</li> </ul>
10b.	$3s + l = 11.30$	1	<ul style="list-style-type: none"> <li>award 1 or 0</li> </ul>
10c.	Small cappuccino costs £2.70 Large cappuccino costs £3.20	3	<ul style="list-style-type: none"> <li>Start to scale equations</li> <li>Solve for small or large</li> <li>Final answer (must include comm)</li> </ul>
11.	$a = 4$	2	<ul style="list-style-type: none"> <li>evidence of <math>7a - 4</math></li> <li>correct answer</li> </ul>
12.	AB = 22.78cm	3	<ul style="list-style-type: none"> <li>evidence of cosine rule</li> <li>correct substitution and 518.9289..</li> <li>evaluate (ignore rounding)</li> </ul>
	Total	41	