Answers and mark guide

Q	Answer	Working	Marks
1	**70°**	Corresponding angles are equal.	2
2	**120°**	Alternate angles are equal.	2
3	**100°**	Co-interior angles add to 180°.	2
4	**70°**	Corresponding angles are equal.	2
5	**145°**	Alternate angles are equal.	2
6	**40° (co-interior)**	Use the parallel-line rules.	3
7	**50° (corresponding)**	Use the parallel-line rules.	3
8	**65° (alternate)**	Use the parallel-line rules.	3
9	**60° (co-interior)**	Use the parallel-line rules.	3
10	**115° (corresponding)**	Use the parallel-line rules.	3
11	**30**	$2x + 10 = 3x - 20$	3
12	**20**	$5x - 10 = 3x + 30$	4
13	**26**	$5x + 50 = 180$	4
14	**70**	$2x + 40 = 180$	3
15	**25**	$4x - 15 = 2x + 35$	3
16	**60° and 40°**	Alternate angles with each of the base angles.	5
17	**72° and 108°**	Corresponding, alternate and vertically opposite angles are 72°; the rest are 180° − 72°.	4
18	**x = 23.75**	$8x - 10 = 180$	5
19	**75° (or 105° depending on the side)**	Angles on a straight line and alternate angles.	5
20	**Draw a line through one vertex parallel to the opposite side; alternate angles give the other two angles at that vertex, and with the triangle's own angle they lie on a straight line (180°)**	Standard proof.	4

My score: _____ / **65** Questions 1–15 = 42 marks (Foundation focus)