Answers and mark guide

Q	Answer	Working	Marks
1	**10 m/s**	Highest point of the graph.	1
2	**6 seconds**	The flat part.	2
3	**20 seconds**	The final time on the axis.	1
4	**6 seconds**	Time at the top of the first slope.	2
5	**13 seconds**	End of the flat section.	2
6	**3 m/s²**	gradient = 12 ÷ 4	3
7	**3.75 m/s²**	gradient magnitude = 15 ÷ 4	3
8	**48 m**	area of the triangle = ½ × 8 × 12	3
9	**150 m**	10 × 15	3
10	**25 m**	½ × 5 × 10	3
11	**180 m**	Total area under the graph.	5
12	**15.3 m/s**	290 ÷ 19	5
13	**104 m**	Add the triangle and rectangle.	4
14	**Acceleration**	Rate of change of velocity.	2
15	**Distance travelled**	Velocity × time.	2
16	**202.5 m**	Trapezium: ½(sum of parallel sides) × height	6
17	**15 m**	Area of a triangle	4
18	**125 m**	Triangle ½ × 5 × 10 = 25; rectangle 10 × 10 = 100	5
19	**48 m**	Triangle	4
20	**6 seconds**	distance = ½ × v × t	5

My score: _____ / 65 Questions 1–15 = 41 marks (Foundation focus)