Fill in the Blanks — Using Constant Acceleration Formulae

s (m)	u (ms^{-1})	v (ms^{-1})	a (ms^{-2})	t (s)	Formula	Working	Answer
–	20	v	3	5	$v = u + at$	$v = 20 + 3 \times 5$	$v = 35\ \text{ms}^{-1}$
s	6.2	9.8	–	2	$s = \frac{1}{2}(u + v)t$	$s = \frac{1}{2} \times 16 \times 2$	$s = 16\ \text{m}$
–	12	18	1.5	t	$v = u + at$	$t = \frac{18 - 12}{1.5}$	$t = 4\ \text{s}$
s	15	–	2.25	4	$s = ut + \frac{1}{2}at^2$	$s = 60 + 2.25 \times 8$	$s = 78\ \text{m}$
87.5	–	v	9.8	5	$s = vt - \frac{1}{2}at^2$	$v = \frac{87.5 + 122.5}{5}$	$v = 42\ \text{ms}^{-1}$
80	0	v	–	10	$s = \frac{1}{2}(u + v)t$	$v = \frac{2 \times 80}{10}$	$v = 16\ \text{ms}^{-1}$
–	28	16	-2.4	t	$v = u + at$	$t = \frac{16 - 28}{-2.4}$	$t = 5\ \text{s}$
325	u	35	–	13	$s = \frac{1}{2}(u + v)t$	$u = \frac{650}{13} - 35$	$u = 15\ \text{ms}^{-1}$
–	3.5	10	a	3.25	$v = u + at$	$a = \frac{10 - 3.5}{3.25}$	$a = 2\ \text{ms}^{-2}$