

Key stage 3 mathematics 2002
Mental arithmetic higher tiers Test A

Test A

Mark scheme

Time: 5 seconds

1	2(.0)	
2	6	
3	15	
4	2	
5	180 degrees	
6	2 : 1	Accept 2 to 1 Do not accept $\frac{2}{1}$ or fraction notation, eg $\frac{2}{1}$ or incorrect ordering, eg 1 : 2 or ratio not in its simplest form
7	0.06	Accept equivalent fractions or decimals

Time: 10 seconds

8	156	
9	12	
10	-2	Do not accept 2-
11	0.3	Accept equivalent probabilities
12	$10a + 7b$	Do not accept partially simplified expressions, eg $10a + 2b + 5b$
13	105 degrees	
14	$32 \% \leq \text{answer} \leq 36 \%$	

Time: 10 seconds continued

15	£ 29.97	
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16		
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17	30	Do not accept 30%
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18	$a^2 + 2a$	Accept $a \times a$ for a^2
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19	<div style="display: flex; align-items: center; gap: 20px;"> <div style="border: 1px solid black; border-radius: 50%; padding: 2px 10px;">0.125</div> <div>0.18</div> <div>0.215</div> </div> <div style="display: flex; align-items: center; gap: 20px; margin-top: 5px;"> <div>0.8</div> <div>1.8</div> </div>	
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20	90	
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21	400 ml	
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22	4 cm	
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Time: 15 seconds

23	2 cm	
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Time: 15 seconds continued

24	168 hours	
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25		Accept angle not labelled provided there is no ambiguity
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26	£ 46.20	
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27	18	
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28	144	
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29	7 and 13	Accept in either order
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30	12	Do not accept incomplete processing, eg $\sqrt{144}$
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