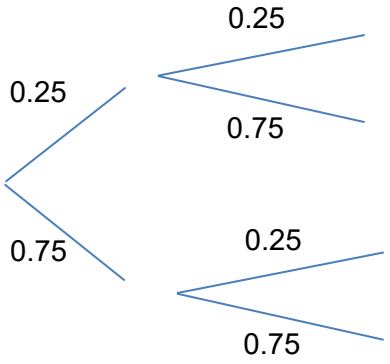
Topic Test 3 Mark Scheme

Probability - Foundation

Q	Answer	Mark	Comments
1(a)		B2	oe B1 at least one pair of correct probabilities
1(b)	0.75 × 0.75	M1	oe may be on diagram
	$\frac{9}{16}$ or 0.5625	A1ft	ft their tree diagram
1(c)	(0.25 × 0.75) + (0.75 × 0.25)	M1	oe eg 2 × 0.75 × 0.25
	$\frac{3}{8}$ or 0.375	A1ft	oe ft their tree diagram

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England and Wales (number 3644723). Our registered address is AQA, Devas Street, Manchester M15 6EX.

Q	Answer	Mark	Comments
2(a)	$\frac{3}{10}$ seen for probability of red ball or $\frac{7}{10}$ for probability of blue	M1	oe
	$\frac{3}{10} \times \frac{3}{10}$	M1dep	their $\frac{3}{10}$ squared
	$\frac{9}{100}$	A1	
2(b)	$\left(\frac{3}{10} \times \frac{7}{10}\right) + \left(\frac{7}{10} \times \frac{3}{10}\right)$	M1	oe
	$\frac{21}{50}$	A1	
2(c)	Probability of red would change to $\frac{5}{19}$	B1	oe
3(a)	$1 - x$	B1	
3(b)	$(1 - x)y$	B1	oe
3(c)	xy or $x(1 - y)$ or $(1 - x)y$ seen	M1	oe
	$xy + x(1 - y) + (1 - x)y$	M1	
	$x + y - xy$	A1	

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