M1.

(a) $\frac{1}{6}$

$\frac{5}{6}$

On every pair of branches
oe
Allow 0.16… or 0.17
Allow 0.83…

B1

(b) $\frac{1}{6} \times \frac{1}{6}$

or $\frac{1}{6} \times$ their $\frac{1}{6}$

oe
Allow 0.16… or 0.17
ft their $\frac{1}{6}$ *provided [0, 1]*

M1

$\frac{1}{36}$

oe
Allow 0.027…
Allow 0.03 if working shown
Ignore fw if attempting to convert $\frac{1}{36}$ *to a decimal, otherwise, do not ignore fw,*
eg $\frac{1}{36} \times 2$

A1ft

[3]

M2.

(a) 0.6

oe

B1

0.75, 0.75, 0.25

oe

B1

(b) 0.4 × their 0.75

M1

0.3

oe

ft their tree diagram

A1ft

[4]

M3.

$\frac{1}{2}$ or $\frac{1}{3}$

Could be on tree diagram

M1

$\frac{1}{2} \times \frac{1}{3}$

M1

$\frac{1}{6}$

oe fraction, decimal or percentage

Allow 0.166… or 0.167 or 16.66…% or 16.67%

A1

Alternative

Two-way table constructed with 6 outcomes

6 outcomes listed

M1

Correct 6 outcomes

M1

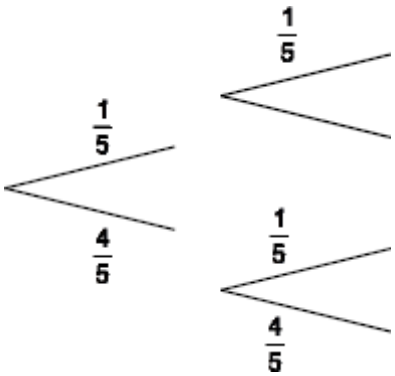
$\frac{1}{6}$

oe fraction, decimal or percentage
Allow 0.166… or 0.167 or 16.66…% or 16.67%

A1

[3]

M4.(a)



oe
B1 at least one correct pair of probabilities
or all top probabilities = $\frac{1}{5}$
or all bottom probabilities = $-\frac{4}{5}$

B2

(b) $\frac{1}{5} \times \frac{4}{5}$ or $\frac{4}{25}$ *oe*
May be at end of tree diagram

M1

$\frac{8}{25}$ or 0.32 *oe*
ft their tree diagram

A1ft

[4]