20	$\frac{\left(\frac{X+4}{2}\right)}{X}\left(=\frac{X+4}{2X}\right)$ **or** $\frac{\left(\frac{X+4}{2}\right)-1}{X-1}\left(=\frac{X+2}{2X-2}\right)$	eg, where b = number of blue counters $\frac{b}{2b-4}$ **or** $\frac{b-1}{2b-5}$	eg, where r = number of red counters $\frac{r+4}{2r+4}$ **or** $\frac{r+3}{2r+3}$			M1	for making a correct start by finding the probability of the first counter being blue for their method
	eg $\frac{X+4}{2X}\times\frac{X+2}{2X-2}$	eg $\frac{b}{2b-4}\times\frac{b-1}{2b-5}$	eg $\frac{r+4}{2r+4}\times\frac{r+3}{2r+3}$			M1	oe correct calculation for 2 blue (using one variable)
	eg $8(X^2 + 6X + 8) = 3(4X^2 - 4X)$	eg $8b(b - 1) = 3(2b - 4)(2b - 5)$	eg $8(r + 4)(r + 3) = 3(2r + 4)(2r + 3)$			M1	dep for a correct equation with no algebraic fractions eg could have $X^2+6X+8=\frac{3}{8}(4X^2-4X)$
	Eg $4X^2 - 60X - 64$ (= 0) **or** $X^2 - 15X - 16$ (= 0) oe	eg $4b^2 - 46b + 60$ (= 0) **or** $2b^2 - 23b + 30$ (= 0) oe	eg $4r^2 - 14r - 60$ (= 0) **or** $2r^2 - 7r - 30$ (= 0) oe			M1	for rearranging their equation to a correct 3 term quadratic
				16	5	A1	cao dep on M4
							Total 5 marks