118	(a)	$p = \gamma m_0 v$ $p = \frac{1}{\sqrt{\left(1 - \frac{(0.999999991 \text{ x } 3 \text{ x } 10^8)^2}{(3 \text{ x } 10^8)^2}\right)}} \text{ x } 1.673 \text{ x } 10^{-27} \text{ x } 0.999999991 \text{ x } 3 \text{ x } 10^8$ $p = 3.74 \text{ x } 10^{-15} \text{ kg. m. s}^{-1}$	1 1
	(b)	$l = l_0 \text{ x } \sqrt{\left(1 - \frac{v^2}{c^2}\right)}$ $l = 8.33 \text{ x } 10^{-16} \text{ x } \sqrt{\left(1 - \frac{(0.999999991 \text{ x } 3 \text{ x } 10^8)^2}{(3 \text{ x } 10^8)^2}\right)}$ $l = 1.12 \text{ x } 10^{-19} \text{ m}$	1 1
	(c)	Momentum increases with the relativistic speed of the protons; Eventually, the relativistic momentum approaches infinity when v approaches c.	1 1
	(d)	A force cannot accelerate a particle to a speed equal to or higher than c because the particle's momentum becomes infinitely large and the acceleration approaches zero as the speed approaches c, no matter how large the applied force.	1