IB Math 1 Quadratic Word Problem Warm Up

1. To keep in practice, Patrick rides his horse 96 miles at a constant speed

every week. If he can ride 4 miles per hour faster, he can complete the

same distance in 2 hours less than usual. What is Patrick’s usual speed?

2. An open-top box with a rectangular base is to be constructed from a

rectangular piece of cardboard and cutting out 2 inch at each

corner ( 2 by 2 inches) and then folding up the resulting flaps. If the volume of the box

is 105in and the length of the box is 4 inches less that the width, what

are the dimensions of the original piece of cardboard?

3. 1080 meters of fencing is available to make six rectangular pens of

identical shape in the arrangement shown. The area of one rectangular

pen is given by . Find the maximum area of one rectangular pen.