

Math 10: CH 1 Problem Solving Activity 1.1-1.2

You will answer both of these questions. Once you have a solution set – you will create a poster showing your solution. Remember your solution **must** include a drawing, all formulas used, all calculations done, and all work and steps shown. You **may** wish to include a written explanation of your process as well. I should be able to follow your poster and know what you were thinking as you made it.

You will work independently for the first part of the class, but you will given time to collaborate with your classmates. If you are stuck on a problem before collaboration either move to the next one **or** use the problem solving strategies on the smartboard that you just went over to help get unstuck.

Everyone will make their own poster solution even in the case of identical work. Write your name on the back of the poster and hand in at the end of class.

Problem 1:

A rancher has 1600m of fencing to construct two adjoining fields (of potentially different areas) with the **greatest area possible**. The minimum area a field can have is $10\,000\text{m}^2$, or 1 hectare (ha).

- a) What are the dimensions of the fields?
- b) What is the total area of both fields?

Problem 2:

Two snowmobilers leave the same place at the same time heading for the same destination, but take different routes. Josephine follows the trail indicated by dashed lines at a speed of 60mph. Marcus follows the trail indicated by a solid line at a speed of 45 mph.

- a) Who arrives first? Show calculations to justify your answer.
- b) How much sooner, to the nearest minute, does the first rider reach the destination?

