

Problem Solving- show all your work- calculations diagrams etc, calculators allowed, answer all parts of the question in a full sentence(s).

1. In the Olympics curlers always shake hands before the competition begins. If there are two teams and each team has four members. How many handshakes in total?. What is there were six members on each team? Do you see any patterns?
2. A student in grade 8 Honours(you fill in the name!) saw a picture of Ms. McCormack that he or she drew a moustache and devil horns on. This beautiful yet now ruined picture of Ms McCormack was 8cm by 12 cm. The frame around the picture was 3 cm thick. What was the total area of the frame and the picture? When the picture was hung on the wall, what was the perimeter of the frame and picture together?
3. On Saturday, Carter shoveled two ice rinks. One rink was 9m by 10 m. The other rink was 12m by 10m. Carter will shovel 10m^2 of a rink for \$4.00. How much money did he make for shoveling both of those rinks?
4. Grade 8 students are making a cookbook of their favourite camp recipes to sell and raise money. They write the page numbers by hand. The book has 250 pages. How many times will the number 9 be written on these pages?

Cookies	Cakes
38	39