



Problem of the Week

Problem E

Painting is Fund (Raising)

The POTW High School Painting Club has 30 student members, some from Grade 11 and the remainder from Grade 12. Over the year, they want to fundraise money for the school art department. Each possible pairing of students from the club will create exactly one painting together. When two Grade 11 students paint together, they will sell the painting for \$20. When a Grade 11 and a Grade 12 student paint together, they will sell the painting for \$30. When two Grade 12 students paint together, they will sell the painting for \$40.

When all the paintings are sold, the students will have raised \$13 920. How many of the 30 members of the club are Grade 11 students?

