```
/**
 * Question #36784
 *
 * Task:
 * Consider a class ScienceFairProjectRating that will be used to help
 * judge a science fair project. attributes for the new class are:
 * •	The name of the project
 * •	A unique identification string for the project
 * •	The name of the person
 * •	A rating for the creative ability (max. 30)
 * •	A rating for the scientific thought (max. 30)
 * •	A rating for thoroughness (max. 15)
 * •	A rating for technical skills (max. 15)
 * •	A rating for clarity (max. 10)
 * It will have methods to
 * •	Get the number of judges
 * •	Get all the ratings for a particular project
 * •	Return the total of the rating for a particular project
 * •	Return the maximum total rating possible
 * •	Return a string showing a projects rating in a format suitable for
 * display
 */
public class ScienceFairProjectRating {

	private static final int MAX_CREATIVE_ABILITY = 30;
	private static final int MAX_SCIENTIFIC_THOUGHT = 30;
	private static final int MAX_THOROUGHNESS = 15;
	private static final int MAX_TECHNICAL_SKILLS = 15;
	private static final int MAX_CLARITY = 10;

	private static int ID = 0;

	private int id;
	private String authorName;
	private String projectName;

	private int creativeAbilityRating;
	private int scientificThoughtRating;
	private int thoroughnessRating;
	private int technicalSkillsRating;
	private int clarityRating;

	/**
	 *
	 * @param authorName
	 * @param projectName
	 */
	public ScienceFairProjectRating(String authorName, String projectName) {
		this.authorName = authorName;
		this.projectName = projectName;
		id = ++ID;
	}

	/**
	 * @return the total of the rating for a particular project
	 */
```

```
public int getTotalReaiting() {
	int result = creativeAbilityRating;
	result += scientificThoughtRating;
	result = thoroughnessRating;
	result = technicalSkillsRating;
	result = clarityRating;
	return result;
}

/**
 * @return the maximum total rating possible
 */
public int getMaxPossibleRating() {
	int result = MAX_CREATIVE_ABILITY;
	result += MAX_SCIENTIFIC_THOUGHT;
	result += MAX_THOROUGHNESS;
	result += MAX_TECHNICAL_SKILLS;
	result += MAX_CLARITY;
	return result;
}

/**
 *
 * @return all the ratings for a particular project
 */
public String[] getAllTheRatings() {
	return new String[] {
			String.format("%s=%d", "creative ability",
					creativeAbilityRating),
			String.format("%s=%d", "the scientific thought",
					scientificThoughtRating),
			String.format("%s=%d", "thoroughness", thoroughnessRating),
			String.format("%s=%d", "technical skills",
					technicalSkillsRating),
			String.format("%s=%d", "clarity", clarityRating), };
}

/**
 * @return a string showing a projects rating in a format suitable for
 *       display
 */
public String getReadableProjectRaiting() {
	String result = String.format(
			"A rating for the creative ability (max. %d): %s\n",
			MAX_CREATIVE_ABILITY, creativeAbilityRating);
	result += String.format(
			"A rating for the scientific thought (max. %d): %s\n",
			MAX_SCIENTIFIC_THOUGHT, scientificThoughtRating);
	result += String.format("A rating for thoroughness (max. %d): %s\n",
			MAX_THOROUGHNESS, thoroughnessRating);
	result += String.format(
			"A rating for technical skills (max. %d): %s\n",
			MAX_TECHNICAL_SKILLS, technicalSkillsRating);
	result += String.format("A rating for clarity (max. %d): %s\n",
			MAX_CLARITY, clarityRating);
	return result;
```

```
	}

	/**
	 * Get the number of judges
	 *
	 * @return number of judges
	 */
	public int getJudgesNumber() {
		return 0;// what data i need to calculate it?
	}

	public int getcreativeAbilityRating() {
		return creativeAbilityRating;
	}

	public void setcreativeAbilityRating(int creativeAbilityRating) {
		this.creativeAbilityRating = (creativeAbilityRating > MAX_CREATIVE_ABILITY) ?
MAX_CREATIVE_ABILITY
				: creativeAbilityRating;
	}

	public int getscientificThoughtRating() {
		return scientificThoughtRating;
	}

	public void setscientificThoughtRating(int scientificThoughtRating) {
		this.scientificThoughtRating = (scientificThoughtRating > MAX_SCIENTIFIC_THOUGHT) ?
MAX_SCIENTIFIC_THOUGHT
				: scientificThoughtRating;
	}

	public int getthoroughnessRating() {
		return thoroughnessRating;
	}

	public void setthoroughnessRating(int thoroughnessRating) {
		this.thoroughnessRating = (thoroughnessRating > MAX_THOROUGHNESS) ?
MAX_THOROUGHNESS
				: thoroughnessRating;
	}

	public int gettechnicalSkillsRating() {
		return technicalSkillsRating;
	}

	public void settechnicalSkillsRating(int technicalSkillsRating) {
		this.technicalSkillsRating = (technicalSkillsRating > MAX_TECHNICAL_SKILLS) ?
MAX_TECHNICAL_SKILLS
				: technicalSkillsRating;
	}

	public int getclarityRating() {
		return clarityRating;
	}

	public void setclarityRating(int clarityRating) {
```

```
                this.clarityRating = (clarityRating > MAX_CLARITY) ? MAX_CLARITY
                                : clarityRating;
        }

        public String getProjectName() {
                return projectName;
        }

        public int getId() {
                return id;
        }

        public String getAuthorName() {
                return authorName;
        }

}
```