



Advanced WS\_G8\_Direct and Inverse Proportion

1. A hybrid car can go 400 miles on 8 gallons of gas. How far can the car take you with 1 gallon of gas?
2. Suppose the width of a soccer field 60 meters and the length is 100 meters. What is the ratio in simplest form of the length to the area of the field?
3. A geometry test has 30 questions. 6 of the 30 questions are based on chapter 5. What is the ratio of questions from chapter 5 to the other questions on the test?
4. Suppose a math class starts at the beginning of the school year with 12 boys and 8 girls. However, after school resumes in January, 6 new boys and 4 new girls came to the class. Is the ratio of boys to total number of students in the class still the same?

5. What should be added to both terms of  $17 : 29$  so that the ratio becomes  $5 : 8$ ?
6. 12. What should be subtracted from both the terms of  $19 : 39$  So that the ratio becomes  $3 : 7$ ?
7. 13. The angles of a triangle are in the ratio  $3 : 5 : 10$ . Find the angles.
8. If  $(m + 3n) : (5m - 2n) = (4m + n) : (8m - 4n)$ , where  $m \neq 0, n \neq 0$  then find  $n : m$ .