

Automotive Technology 6th Edition

Chapter 14 – Math, Charts, and Calculations

Lesson Plan



CHAPTER SUMMARY:

1. Decimals, percentages, scientific notation, adding, and subtracting
 2. Fractions, multiplying, and dividing
 3. Gear ratios
 4. Graphs, charts, and diagrams
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OBJECTIVES:

1. Discuss mathematic principles relevant to service technicians and the use of decimals in representing percentages and fractions.
 2. Explain the concept of mathematical formulas and the steps to calculate the fuel economy of an automobile.
 3. Compare the different categories of gear ratios.
 4. Explain how to interpret graphs, charts, and diagrams.
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RESOURCES: (All resources may be found at <http://www.jameshalderman.com>)

1. **Task Sheet:** Math Problem Exercise
 2. Chapter PowerPoint
 3. Chapter Crossword Puzzle and Word Search
 4. Animations: Math Formula Horsepower, Math Formula Vehicle Speed and Math Formula Circle Area
 5. Animations: Math Formula Eng-Metric Conversion, Area
 6. Animations: Math Formula, Eng-Metric Conversion – Volume
 7. Animations: Math Formula, English to Metric – Pressure and Math Formula, Eng to Metric – Length
 8. Animations: Math Formula, lb ft to lb in – Torque and Math Formula, Gear Ratio
 9. Animations: Math Formula, lb in to lb ft – Torque and Math Formula, Metric-Eng Conversion – Temp
 10. Animations: Math Formula, Metric-Eng Conversion – Area and Math Formula, Metric-Eng – Pressure
 11. Animations: Math Formula, Metric-Eng Conversion – Volume
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ACTIVITIES:

1. **Task Sheet:** Have students complete Math Problem Exercise Task Sheet.
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ASSIGNMENTS:

1. Chapter crossword and word search puzzles.
 2. Complete end of chapter 10 question quiz.
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CLASS DISCUSSION:

1. Review and group discussion chapter [Frequently Asked Questions](#) and [Tech Tips](#) sections.
 2. Review and group discussion of the five (5) chapter [Review Questions](#).
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NOTES AND EVALUATION:
