

Math 10 Outline

Geometry, Measurement and Finance 10:

Text: *MathWorks 10* (Pacific Education Press)

Topics:

Unit Pricing and Currency Exchange
Earning an Income
Financial Services
Systems of Measurement and Conversions
Mass, Temperature, and Volume
Surface Area, Volume, and Capacity
Angles and Parallel Lines
Trigonometry of Right Triangles

Materials: Each student should have a 3-ring binder, a pencil, paper and a scientific calculator in class daily (not a phone with a calculator). All work must be done in pencil.

Assessment:

Assessment will take a variety of forms:

- Exam 25%
- Products: Tests 40%, Assignments & Quizzes 15%
- Observations & Conversations: 10%

Extra Help Sessions: Tuesday after school or other night by previous arrangement.

Exam Exemptions:

You can earn 1 exam exemption per semester by either:

- Maintaining an 85% average, all major assignments complete and be passing all courses.
- Or, missing 5 or less unexcused days (2 lates is an absence) and be passing all courses. Excuses have to be submitted within 5 days of absence.

Attendance: Attendance is very important! These are the guidelines for any student missing...

- 5 days for any reason (except extra-curricular): phone call home
- 10 days: letter home and students must start to “buy back days”
- 12 days: case conference with parents
- 15 days: letter to remind parents that at 20 days the credit may be revoked
- 20 days: ESS meeting to determine if credit will be revoked

Late for Class:

- Less than 5 minutes: after 3 offences, you’ll be required to serve a 30 minute detention
- More than 5 minutes late: double time will be served in detention
- 30 minutes or more, you’ll be marked absent

Outcomes:

Number (N): Chapters 1-3 Text

1. Solve problems that involve unit pricing and currency exchange, using proportional reasoning.
2. Demonstrate an understanding of income including: wages, salary, contracts, commission, piecework, and calculating gross pay and net pay
3. Demonstrate an understanding of compound interest.
4. Demonstrate an understanding of financial institution services used to access and manage finances.
5. Demonstrate an understanding of credit options including: credit cards, and loans.

Algebra (A): Chapter 4, 7 & 8 Text

1. Solve problems that require the manipulation and application of formulas related to: perimeter, area, the Pythagorean theorem, primary trigonometric ratios and income.

Geometry (G): Chapter 7 & 8 Text

1. Analyze puzzles and games that involve spatial reasoning, using problem-solving strategies.
2. Demonstrate an understanding of the Pythagorean theorem by: identifying situations that involve right triangles, verifying the formula, applying the formula, solving problems.
3. Demonstrate an understanding of primary trigonometric ratios (sine, cosine, tangent) by: applying similarity to right triangles, generalizing patterns from similar right triangles, applying the primary trigonometric ratios, solving problems.
4. Solve problems that involve parallel, perpendicular and transversal lines, and pairs of angles formed between them.
5. Demonstrate an understanding of angles, including acute, right, obtuse, straight and reflex, by: drawing, replicating and constructing, bisecting, and solving problems.

Measurement (M): Chapter 4, 5, & 6 Text

1. Demonstrate an understanding of the Système International (SI) by describing the relationships of the units for length, area, volume, capacity, mass and temperature
2. Demonstrate an understanding of the imperial system by describing the relationships of the units for length, area, volume, capacity, mass and temperature.
3. Solve problems that involve linear measurement using estimation and measurement strategies, and using SI and Imperial systems and conversions between them.
4. Solve problems that involve area measurements of regular, composite and irregular 2-D shapes, including decimal and fractional measurements, and verify the solutions and using SI and Imperial systems..
5. Solve problems that involve the surface area and volume of 3-D objects, including right cones, right cylinders, right prisms, right pyramids, and spheres and using SI and Imperial systems..