

Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for credit.

Suggested due date: next class period. Final due date: the day of the Unit 1 Exam.

Solve the following equations.

(1) Solve for y : $8x - 2y = 14$

(4) Solve for t : $Q = M + Mrt$

(2) Solve for y : $4x + 8y = 32$

(3) Solve for n : $t = 3n + 3w$

(5) Solve for v : $z = \frac{r - v}{x}$

(6) Thang decided to borrow \$9000 from his local bank to help pay for a car. His loan was for 3 years at a simple interest rate of 5%. How much interest will Thang pay?

(7) Mary loaned her friend, Dawn, \$20,000 at a simple interest rate of 3.25% per year. At the end of the loan period, Dawn repaid Mary the original \$20,000 plus \$4225 interest. Determine the length of the loan.

(8) Professor MG is laying concrete for a driveway. The driveway is going to be 15 feet long, 10 feet wide, and 6 inches deep.

(a) What volume of concrete is needed in cubic feet? (Remember to convert all units to feet before finding volume.)

(b) If the concrete costs \$1.40 per cubic foot, how much does Professor MG have to pay?