

Concordia University Math Day 2010

Tim leaves point A heading east at noon moving 5 miles per hour. Lee leaves point A heading west at 1 PM moving 4 miles per hour. How far apart are they at 2:30 PM?	18.5 miles
A regular polygon has interior angles of 144 degrees. How many sides does the polygon have?	10
In how many points does the line $y = x + 1$ intersect the parabola $y = x^2 - 2x + 2$?	2
One end of a 5-foot long ladder is placed 3 feet from a wall. How far up the wall does the ladder reach?	4 feet
If x is inversely proportional to y and $x = 4$ when $y = 6$, find x when $y = 8$.	3
A cone shaped funnel is four inches high and four inches in diameter. If the full funnel is drained into an empty cylindrical glass four inches in diameter, what will the fluid level in the glass become?	$4/3$ inches
What is the first prime larger than 104?	107
An investor makes an initial investment of \$1000 on Monday. On Tuesday he learns that his investment has gained 10%, and on Wednesday he learns that the investment has lost 10% of the value it had on Tuesday. What is the value of his investment on Wednesday?	\$990
A sphere has surface area 24π . What is its radius?	$\sqrt{6}$