PROBLEM SOLVED
MAKING SENSE OF MATHEMATICS

1. Greyhounds are very fast dogs that run at an average rate of 50 feet per second. Some greyhounds are involved in racing where they chase an artificial lure around a track. How long would it take a greyhound to overtake the lure if the lure had a 75 foot lead and moves at a rate of 45 feet per second? What distance must the greyhound travel to overtake the lure?

Diagram

Expressions

Greyhound dog

rate (ft per second)	seconds	distance

Expression:

Lure

rate (ft per second)	seconds	distance

Expression:

Using Expressions

Check the solution from the diagram above by substituting the value of the solution into both expressions.

Greyhound's distance   Lure's distance

MakingSense

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2. Tom and Juan are beginning a training program for the upcoming football season. Tom weighs 150 pounds and plans to gain 2 pounds per week through this training program. Scott weighs 195 pounds and plans to lose 1 pound per week. If their plans work, in how many weeks will they weigh the same amount? What will their weight be at that time?

Diagram

Expressions

Tom's Weight

rate of weight gain (pounds per week)	# of weeks	weight gain

Expression:

Juan's Weight

rate of weight loss (pounds per week)	# of weeks	Weight loss

Expression:

Using Expressions
Check the solution from the diagram above by substituting the value of the solution into both expressions.

Tom's Weight   Juan's weight

MakingSense

3. Jennifer would like to get broadband Internet service for her house. She is considering either the local phone company or the cable TV provider. Jennifer finds that the phone company would have no activation fee but their charge for service is $30 per month. The cable TV company has a $100 activation fee with a $20 per month charge for service. Which is the better value?

Diagram

Expressions

Cost at phone company

rate (dollars per month)	# of months	monthly cost

Expression:

Cost at cable TV company

rate dollars per month	# of months	monthly cost

Expression:

Using Expressions
Check the solution from the diagram above by substituting the value of the solution into both expressions.

Cost at phone company   Cost at cable TV company