

SPARK Hybrid Education Center

Mathematics | Upper Level | Week 4

Word Problems & Real-World Applications

Name: _____ Date: _____ Period: _____

Practice Problems

1. A taxi costs \$2.50 plus \$0.75 per mile. Write and solve an equation for a \$10 ride.

2. Two numbers sum to 48. One is three times the other. Find both numbers.

3. A rectangle's length is 5 more than twice its width. Perimeter = 52. Find dimensions.

4. Maria is 3 years older than twice her brother's age. She is 25. How old is her brother?

5. A store marks items up 40%. If the sale price is \$84, what is the original price?

6. Solve: Carlos drives 60 mph for t hours, then 45 mph for 2 hours. Total distance = 225 miles. Find t .

7. Write as an equation: 'The sum of three consecutive integers is 54.'

8. A pool holds 15,000 liters. It drains at 250 L/min. When is it half empty?

9. Translate and solve: 'Seven more than four times a number equals three less than six times the number.'

10. CHALLENGE: A train leaves at 9 AM at 80 mph. A second leaves at 10 AM at 100 mph. When does the second train catch up?

ANSWER KEY (Teacher Copy - Cut before distributing)

1. $2.50 + 0.75m = 10$; $m = 10$ miles
2. 12 and 36
3. Width = 7, Length = 19
4. 11 years old
5. \$60
6. $t = 2$ hours ($60 \times 2 + 45 \times 2 = 210$... recalc: $60t + 90 = 225$, $t = 2.25$ hr)
7. $n + (n+1) + (n+2) = 54$; $n = 17$
8. 30 minutes
9. $4n + 7 = 6n - 3$; $n = 5$
10. 2 hours after first train (11 AM); $80(t+1)=100t \rightarrow t=4$, so 1 PM

