

Word Problem Strategies

By Kim Scott - Adult Education Instructor

kiscotto1@cacc.edu

Kim's Tips

- **“I Do, We Do, You Do” Model**
- **Personalize the word problem – use student names, real life examples (Contextualized Instruction)**



Fraction and Decimal Problems

Note: A common strategy to use on word problems with decimals and fractions is to replace the decimal or fractional values with easy to use numbers.

- Example 1

Austin worked $5\frac{1}{4}$ hours on Monday and $3\frac{7}{8}$ hours on Tuesday. *How many more hours did he work on Monday than on Tuesday?*

- Example 2

Little Mart charges \$3.98 for a pound of lean ground beef. *How much will a customer pay for 2.4 pounds of lean ground beef?*

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- **Personalize the word problem – use student names, real life examples (Contextualized Instruction)**
- **Concrete to Abstract**
- **Ask Leading Questions**
- **Break the word problem down in “chunks”**



Translating Word Problems

Note: A common strategy to use on word problems that use variables (or letters) is to replace the variables with actual numbers.

- Example 1

The cost of buying a movie in I-tunes that has just come out on demand is \$15 more than renting the movie on I-tunes 3 months later. If the cost of renting a movie is r dollars, which expression shows the cost in dollars of buying a movie on demand?

- A) $15r$
- B) $r + 15$
- C) $15 - r$
- D) $r + r$

Note: These are lower level Pre-GED problems or TABE level E problems

Translating Word Problems

Note: A common strategy to use on word problems that use variables (or letters) is to replace the variables with actual numbers.

- Example 2

Some students are planning to go see a play.

Tickets are \$25.50 per student. Transportation will cost \$195 total. Which function shows the total cost, C , of going to the play, where s is the number of students?



- A) $C = 195s - 25.50$
- B) $C = 195s + 25.50$
- C) $C = 25.50s - 195$
- D) $C = 25.50s + 195$

Translating Word Problems

Note: A common strategy to use on word problems that use variables (or letters) is to replace the variables with actual numbers.

- Example 3

Katelyn works at a hair salon and charges 8% more for a haircut than she did last year. If t is the amount Katelyn charged for a haircut last year, which expression gives the amount Katelyn charges for a haircut this year?

- A) $1.08t$
- B) $0.08 + t$
- C) $1.08t + t$
- D) $0.08(1 + t)$

Note: These are Pre-GED problems or TABE level M problems

Translating Word Problems

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- Example 4

A group of 5 adults and 8 children visit an air show that includes a plane ride. Adults must pay an admission fee, but children enter for free. All members of the group spend \$7.50 on lunch at the air show. Including the admission fee, the group spends a total of \$152.50. Which equation can be used to determine the admission fee, f , in dollars?

- A) $5f + 97.5 = 152.5$
- B) $5(f + 7.50) = 152.50$
- C) $13f + 97.5 = 152.50$
- D) $13(f + 37.5) = 152.50$

Kim's Tips

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 - **Personalize the word problem – use student names, real life examples (Contextualized Instruction)**
 - **Concrete to Abstract**
 - **Ask Leading Questions**
 - **Break the word problem down in “chunks”**
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- **Always answer what the question Asks!**
 - **Have students draw diagrams, write out information – For example, students should draw shape of the object on geometry word problems.**
 - **Practice, Practice, Practice!**

Percent/Unit Rate Problems

*Note: I will use a
strategy I call the Box
Method*

Box Method: <https://docplayer.net/22977144-The-box-method-part-whole-100.html>

- Example 1

Ian bought a coat on sale for \$144.50. The sale price was 85% of the original price of the coat. What was the original price?

- Answer:

Percent/Unit Rate Problems

Note: I will use a strategy I call the Box Method

- Example 2

Craig can run a mile in 6.5 minutes. If he keeps the same pace, how many minutes will it take him to run 3 miles?

- Note: Notice a "pattern" with unit rate/proportion problems.

For more examples, follow the link below: <https://www.basic-mathematics.com/proportion-word-problems.html>

- Answer:

Percent/Unit Rate Problems

*Note: I will use a
strategy I call the Box
Method*

- Example 3

Michael can type 360 words in 6 minutes. At that rate, how long will it take to type 1,020 words?

- Answer:

Percent/Unit Rate Problems

*Note: I will use a
strategy I call the Box
Method*

- Example 4

Phyllis bikes $2\frac{1}{2}$ miles in $\frac{1}{4}$ hour. At that rate, find the number of miles she would bike in 1 hour.

- Answer:

Percent/Unit Rate Problems

*Note: I will use a
strategy I call the Box
Method*

- Example 5

A pontoon boat travels at a speed of 18 miles per hour. What is the boat's approximate speed in feet per second?

- Answer:

- *Note: This question is on GED level or TABE D/A level.*

Percent/Unit Rate Problems

*Note: I will use a
strategy I call the Box
Method*

- Example 6

Essence drives at a speed of 25 kilometers per hour. At this speed, how many meters does she drive in 6 minutes?

- Answer:

Percent/Unit Rate Problems

*Note: I will use a
strategy I call the Box
Method*

- Example 7
- Elsa works as a general contractor. To visit the city's planning office, she parks her car in a parking garage. She finds 9 quarters and some dimes in a change tray. Which inequality can Elsa use to determine whether she has enough money to pay the \$4.35 parking fee, if x represents the number of dimes?

A) $9 + x > 4.35$

B) $9 + 0.10x \geq 4.35$

C) $2.25 + 0.10x > 4.35$

D) $2.25 + 0.10x \geq 4.35$