

# Lesson 2 Multi-Step Problem Solving

## Multi-Step Example

The table shows the change in value for four stocks over one day. What is the difference between the greatest value change and the least value change expressed as a decimal? **7.EE.3, MP 6**

- (A) 1.25
- (B) 1.2325
- (C) 1.1
- (D) 0.6

Stock	Value
MCD	+1.75%
THC	+0.65
BIG	$+\frac{7}{8}$
GES	$+1\frac{1}{4}$

Use a problem-solving model to solve this problem.

### 1 Understand

Read the problem. Circle the information you know. Underline what the problem is asking you to find.

### 2 Plan

What will you need to do to solve the problem? Write your plan in steps.

**Step 1** Express each number as a \_\_\_\_\_. Then compare.

**Step 2** Determine which decimal is the \_\_\_\_\_ and which is the \_\_\_\_\_. Then subtract.

### 3 Solve

Use your plan to solve the problem. Show your steps. Write each percent or fraction as a decimal. Then subtract.

$1.75\% = \underline{\hspace{2cm}}$ 
 $0.65 = \underline{\hspace{2cm}}$ 
 $\frac{7}{8} = \underline{\hspace{2cm}}$ 
 $1\frac{1}{4} = \underline{\hspace{2cm}}$   
 $\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$  Subtract.

The difference between the greatest value change and least value change is \_\_\_\_\_.

The correct answer is \_\_\_\_\_. Fill in that answer choice.

### 4 Check

How do you know your solution is accurate?

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**Read to Succeed!**

Remember to move the decimal point two places to the left when changing the percent 1.75% to a decimal.

# Lesson 2 (continued)

Use a problem-solving model to solve each problem.

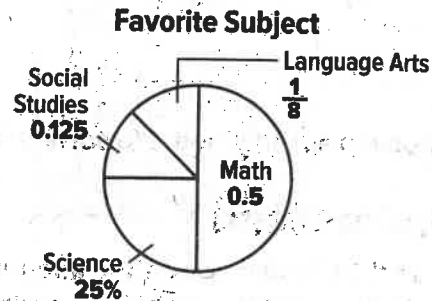
- 1 In Mr. Nguyen's class, 24 out of 30 students have a pet. In Ms. Young's class, 55% of students have a pet. Which statement below correctly compares the fraction of students who have a pet in Mr. Nguyen's class to the fraction of students who have a pet in Ms. Young's class? 7.EE.3, MP 6

- (A)  $\frac{4}{5} = \frac{11}{20}$   
 (B)  $\frac{4}{5} < \frac{11}{30}$   
 (C)  $\frac{4}{5} > \frac{4}{55}$   
 (D)  $\frac{4}{5} > \frac{11}{20}$

- 3 The table shows the amount of time Pablo practiced his saxophone over three days. Pablo realized he made an error by writing the reciprocal for the time spent on Monday. Once he corrects the error, what is the decimal equivalent of the number that would come first if the times were ordered from greatest to least? 7.EE.3, MP 1

Day	Time (hr)
Monday	$\frac{4}{3}$
Tuesday	$\frac{7}{8}$
Wednesday	$\frac{5}{6}$

- 2 The circle graph below shows the favorite subjects of seventh-grade students in a gym class. There are 32 students in the class. How many more students chose Math than Social Studies and Language Arts? 7.EE.3, MP 2



- 4 **H.O.T. Problem** Which of the following numbers is closest to 88% on the number line?

$\frac{4}{5}, \frac{8}{9}, \frac{21}{25}$

Write both the decimal and fraction form of the number. 7.NS.2d, MP 4