Lesson: Multistep Word Problems

Practice Set: Estimate products

Question 1:

Estimate by rounding both numbers to tens and then multiplying.

61 x 29 is approximately ☐

Question 2:

Estimate by rounding the largest number to tens and then multiplying.

311 × 5 is approximately ☐

Question 3:

Estimate by rounding both numbers to tens and then multiplying.

64 x 32 is approximately ☐

Question 4:

Estimate by rounding both numbers to hundreds and then multiplying.

281 x 391 is approximately ☐

Question 5:

Estimate by rounding the largest number to hundreds and then multiplying.

691 x 4 is approximately ☐

Practice Set: Estimate quotients

Question 1:

Estimate by rounding both numbers to tens and then divide.

61 ÷ 29 is approximately ☐

Question 2:

Estimate by rounding both numbers to tens and then divide.

88 ÷ 29 is approximately ☐

Question 3:

Estimate by rounding both numbers to hundreds and then divide.

76 ÷ 57 is approximately ☐

Question 4:

Estimate by rounding both numbers to hundreds and then divide.

997 ÷ 122 is approximately ☐

Question 5:

Estimate by rounding both numbers to hundreds and then divide.

178 ÷ 121 is approximately ☐

Practice Set: Estimate products word problems

Question 1:

Tina's Beauty Salon charges $10 per haircut. If the salon has 52 visitors seeking haircuts per day, estimate how much Tina would make in a day by rounding the number of visitors to the nearest ten.

$☐

Question 2:

There are 8 soccer matches per day at Greenville's annual soccer tournament, which lasts 17 days. Estimate the number of soccer matches during the tournament by rounding the larger number to the nearest ten.

☐ soccer matches

Question 3:

All four members of the Jones family want to take a cruise with Luxury Starline. Estimate how much the family would spend if a cruise costs $3,220 per person by rounding the cost per person to the nearest thousand.

$☐

Question 4:

Anna pays $120 per month for piano lessons. Estimate how much Anna pays each year for piano lessons by rounding the amount paid to the nearest hundred.

$☐

Question 5:

Tony's Pizza made 36 pizzas today. If each pizza contains 12 slices, estimate how many slices of pizza Tony's Pizza Place made by rounding both numbers to the nearest ten.

☐ slices

Practice Set: Estimate quotients word problems

Question 1:

The fourth grade class is taking a field trip. If there are 391 fourth graders and each bus seats 100 people, estimate the number of buses needed. Round the number of students to the nearest hundred.

☐ buses

Question 2:

Ms. Keith's class has 21 students. If four people can work together on a group project, estimate the number of groups that there will be by rounding the larger number.

☐ groups

Question 3:

Keith's bookshelf has 5 shelves. If he has 262 books, estimate the number of books he can put on each shelf by rounding the larger number to the nearest hundred.

☐ books

Question 4:

There are 39 people on a kayaking trip. If each kayak holds 2 people, estimate how many kayaks are needed by rounding the larger number to the nearest ten.

☐ kayaks

Question 5:

Kate has $60. If shirts cost $18.99, estimate the maximum number of shirts she can buy by rounding the price to the nearest ten.

☐ shirts

Practice Set: Solve one-step word problems review

Question 1:

A bread recipe calls for **10** cups of flour. If a bowl already has **4** cups of flour, how many more cups need to be added to the bowl?

$c =$ ☐ cups

Question 2:

Arthur wrote five pieces of piano music that each last **3** minutes. If Arthur wants to play all **5** pieces in a row, how long will he play for?

$m =$ ☐ minutes

Question 3:

If you have $**45** in **5** dollar bills in your pocket, how many 5 dollar bills are in your pocket?

$d =$ ☐ five dollar bills

Question 4:

Francine walked a total distance of **15** miles in two days. If she walked a distance of **8** miles the first day, how many miles did she walk on the second day?

- m = 15 miles
- m = 7 miles
- m = 8 miles
- m = 6 miles

Question 5:

There are **30** Halloween masks being displayed in a store window. If people buy **12** of the masks, how many masks are left?

m = ☐ masks

Practice Set: Solve two-step word problems review

Question 1:

If there are **6** egg cartons that are filled with eggs and there is an 7th egg carton that has **7** eggs, how many eggs are there in total, if each egg carton holds **12** eggs?

e = ☐ eggs

Question 2:

Two classes are combining to do a singing performance. The first class has **26** students and the second class has **22** students. If the students will then be split into **four** singing groups, how many students will be in each of the groups?

s = ☐ students

Question 3:

If there are **3** classrooms that each have **25** desks and there are a total of **87** students, how many more desks need to be added to a 4th classroom, that was originally empty, so that each of the students has a desk to sit in?

d = ☐ desks

Question 4:

A teacher offers her students **2** prizes when they get perfect scores on their spelling quizzes. If one of her students gets a perfect score on **5** of the quizzes and already has **4** prizes, how many prizes in total does this student have?

p = ☐ prizes

Question 5:

There are **5** strawberry boxes that are each filled with strawberries. Someone eats **5** of the strawberries. If each box holds a total of **18** strawberries, how many strawberries are left?

$s =$ ☐ strawberries

Practice Set: Solve multistep word problems with four operations

Question 1:

There are 30 bicycles and 10 cars parked in the parking lot. Each bicycle had two wheels and each car had four wheels. How many wheels are there in total?

☐ wheels

Question 2:

There are 20 bicycles and 10 cars parked in the parking lot. Each bicycle had two wheels and each car had four wheels. How many wheels are there in total?

☐ wheels

Question 3:

Each baseball team has nine players and each football team has eleven players. Six schools have both baseball and football teams. Four schools have only a baseball team. How many players are there for all ten schools?

☐ players

Question 4:

Each baseball team has nine players and each football team has eleven players. Five schools have both baseball and football teams. Three schools have only a baseball team. How many players are there for all eight schools?

☐ players

Question 5:

Robins eat 16 worms in the morning on an average sunny day. On rainy days, robins average 4 fewer worms in a morning. Last week, there were 3 sunny days and 4 rainy days. How many worms did a robin eat that week?

☐ worms

Practice Set: Represent multistep word problems with variable equations

Question 1:

A train has **6** passenger cars and each car has **4** columns of seats and each column holds **50** passengers. If one of the cars has **25** empty seats, and the rest of the cars are full, how many passengers are on the train?

Which of the following sets of equations correctly represents this situation?

- Number of seats per car: $4 \times 50 = 200$
  Total number of seats: $200 - 6 = 194$
  Number of passengers: $194 - 25 = p$

- Number of seats per car: $4 \times 50 = 200$
  Total number of seats: $200 \times 6 = 1{,}200$
  Number of passengers: $1{,}200 - 25 = p$

- Number of seats per car: $6 \times 50 = 300$
  Total number of seats: $300 \div 4 = 75$
  Number of passengers: $75 - 25 = p$

- Number of seats per car: $6 \times 50 = 300$
  Total number of seats: $300 \div 4 = 75$
  Number of passengers: $75 + 25 = p$

Question 2:

A train has **3** passenger cars and each car has **4** columns of seats and each column holds **40** passengers. If one of the cars has **15** people standing in addition to all of the sitting passengers, and the rest of the cars are full without anyone standing, how many passengers are on the train?

Which of the following sets of equations correctly represents this situation?

- Number of seats per car: $40 \div 4 = 10$
  Total number of seats: $10 \times 3 = 30$
  Number of passengers: $30 + 15 = p$

- Number of seats per car: $4 \times 40 = 160$
  Total number of seats: $160 \times 3 = 480$
  Number of passengers: $480 - 15 = p$

- Number of seats per car: $40 \div 4 = 10$
  Total number of seats: $10 \times 3 = 30$
  Number of passengers: $30 - 15 = p$

- Number of seats per car: $4 \times 40 = 160$
  Total number of seats: $160 \times 3 = 480$
  Number of passengers: $480 + 15 = p$

Question 3:

Pamela is building a **2** wooden decks. Each deck needs **25** pieces of wood and each piece of wood needs **8** screws. If Pamela already has **40** screws, how many more screws does she need to buy?

Which of the following sets of equations correctly represents this situation?

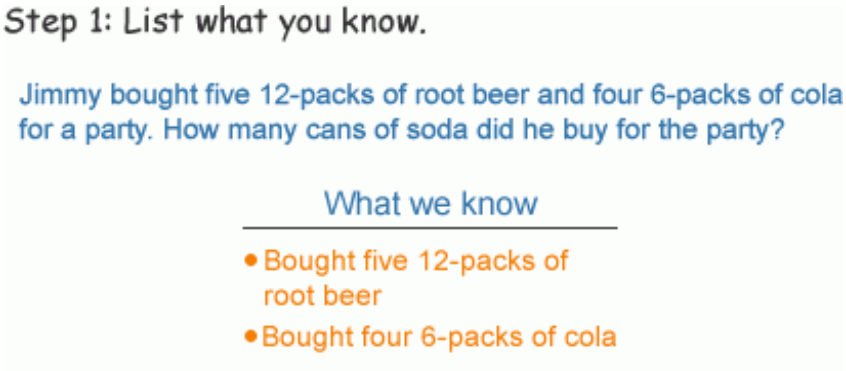
- Number of screws for one deck: $40 \times 8 = 320$
  Number of screws for both decks: $320 \div 2 = 160$
  Screws needed: $160 - 25 = s$

- Number of screws for one deck: $25 \times 8 = 200$
  Number of screws for both decks: $200 \times 2 = 400$
  Screws needed: $400 - 40 = s$

- Number of screws for one deck: $25 \times 8 = 200$
  Number of screws for both decks: $200 \div 2 = 100$
  Screws needed: $100 - 40 = s$

- Number of screws for one deck: $40 \times 8 = 320$
  Number of screws for both decks: $320 \times 2 = 640$
  Screws needed: $640 - 40 = s$

Question 4:



Which information is given in the problem?

Check all that are true.

- [ ] How many cans of soda did Jimmy buy?
- [ ] Jimmy bought five 12-packs of root beer.
- [ ] Jimmy bought four 6-packs of cola.
- [ ] A 12-pack has 6 colas.
- [ ] It's Jimmy's birthday.

Question 5:

Kasey is building **5** wooden cabinets. Each cabinet needs **7** pieces of wood and each piece of wood needs **6** nails. If Kasey already has **55** nails, how many more nails does she need to buy?

Which of the following sets of equations correctly represents this situation?

- Number of nails for one cabinet: $7 + 6 = 13$
  Number of nails for 5 cabinets: $13 \times 5 = 65$
  Screws needed: $65 - 55 = n$

- Number of nails for one cabinet: $7 \times 6 = 42$
  Number of nails for 5 cabinets: $42 \times 5 = 210$
  Screws needed: $210 + 55 = n$

- Number of nails for one cabinet: $7 + 6 = 13$
  Number of nails for 5 cabinets: $13 \times 5 = 65$
  Screws needed: $65 + 55 = n$

- Number of nails for one cabinet: $7 \times 6 = 42$
  Number of nails for 5 cabinets: $42 \times 5 = 210$
  Screws needed: $210 - 55 = n$

Practice Set: Solve multistep word problems with variable equations

Question 1:

If there are **60** seconds in an minute, **60** minutes in an hour, **24** hours in a day, and **7** days in a week, how many seconds are in a week? Hint: Use a calculator to solve this problem.

[ ] seconds in a week

Question 2:

Step 1: List what you know.

A pound of mangoes costs $4, and a pound of grapes costs $3. You spend a total of $21 on these two fruits. If you buy 3 pounds of mangoes, how many pounds of grapes do you buy?

What we know

- Pound of mangoes = $4
- Buy 3 pounds of mangoes
- Pound of grapes = $3
- Total of $21 spent on fruit

Which information is given in the problem?

Check all that are true.

- [ ] A pound of mangoes costs $4.
- [ ] You bought 3 pounds of grapes.
- [ ] A pound of grapes costs $3.
- [ ] A total of $21 was spent on fruit.
- [ ] You bought 3 pounds of mangoes.

Question 3:

James and Kelly have **$10** to spend at a grocery store. If they get **3** avocados which cost **$1** each, **4** tomatoes which cost a total of **$2** for all 4, and **two** loaves of bread which cost **$2** each, how much change will James and Kelly receive after their purchase?

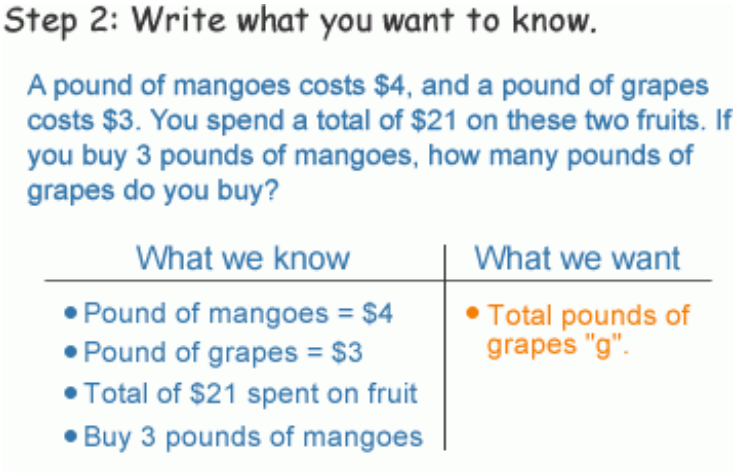
$[ ]

Question 4:

Candice is learning to hula hoop. She starts out with 1 hula hoop and adds another. She then adds another 3 hula hoops. She then triples the number of hula hoops she is using. She then doubles that number of hula hoops. How many hula hoops is she now hula hooping with?

[ ] hula hoops

Question 5:



What piece of information do we want to know?

- A pound of mangoes costs $4.
- How many pounds of grapes you bought.
- A pound of grapes costs $3.
- A total of $21 was spent on fruit.
- You bought 3 pounds of mangoes.

Practice Set: Assess the reasonableness of answers using rounding and mental computation 5

Question 1:

There are **5** classes with **29** students per class and **5** teachers ordering pizza. **One** pizza feeds **5** people. Which of the following is a good estimation of how many pizzas are needed?

- 26 pizzas
- 31 pizzas
- 36 pizzas
- 41 pizzas
- 46 pizzas

Question 2:

You have a bag of **130** strawberries. You eat **27** strawberries and then split the remaining strawberries between **4** friends. Which of the following is a good estimation of how many strawberries each of your friends get?

- 5
- 15
- 25
- 35
- 45

Question 3:

A bicyclist was on a **three** day tour around a lake. On the first day, he rode **78** miles, on the second day he rode **54** miles, and on the third day he rode **twice** as far as the second day. Which of the following is a good estimation of how far he rode in the three days?

- 190 miles
- 230 miles
- 270 miles
- 310 miles
- 350 miles

Question 4:

Carl wants to put up a glow-in-the-dark sticker display on his bedroom ceiling. He needs a gallon of black paint which costs **$12**. The stickers cost **$18** per package and he wants to buy **2** packages. Which of the following is a good estimation of how much change Carl will get back if he gives the cashier $60?

- $0
- $10
- $20
- $30
- $40

Question 5:

Tony is making chocolate covered strawberries for his birthday party. There will be **19** friends and **18** family members, including Tony, at the party. Each person should get **2** strawberries. Which of the following is a good estimation of the total number of cups of chocolate needed if **one** cup of chocolate will cover **20** strawberries?

- 1 cup of chocolate
- 4 cups of chocolate
- 7 cups of chocolate
- 10 cups of chocolate
- 13 cups of chocolate

Practice Set: Assess the reasonableness of answers using rounding and mental computation 6

Question 1:

You're going to the store to pick up some milk and cereal and want to know how much cash to bring. You remember last time you went to the store, milk cost $3 and cereal cost $4. Should you estimate or find an exact amount of money to bring to the store?

- Exact
- Estimate

Question 2:

You go to a store to pick up milk and cereal. You see that the milk costs **$4** and the cereal costs **$5**. Should you estimate or use the exact amount of money to pay at the cash register?

- Exact
- Estimate

Question 3:

Your teacher asks your class to add the numbers 153 and 167. Should you answer with an estimate or an exact answer?

- Estimate
- Exact

Question 4:

You are at a restaurant and you remember the prices on the menu, but you can't quite figure out how much everything will cost with the tax. Should you estimate or calculate the exact amount of money you need to pay before the bill comes to the table?

- Estimate
- Exact

Question 5:

Elizabeth went to an orchard to pick apples. She picked a total of 23 apples and wants to separate them into 4 bags. Elizabeth wants to estimate how many apples will be in each bag. What is a good estimate for 23 to make it easily divided by 4?

- 27
- 22
- 29
- 25
- 20

Practice Set: One step word problems with remainders (left over/discard left over)

Question 1:

If it takes **5** cups of flour to make a batch of cupcakes, how many batches of cupcakes can you make with **31** cups of flour?

Number of batches of cupcakes that can be made: ☐

Question 2:

Tina and Tracey are putting **70** things from their present lives into a few boxes, and then they are going to bury the boxes so they can dig them up in the future. If each box can hold **30** things, how many boxes will they fill and how many things will not make it into a box?

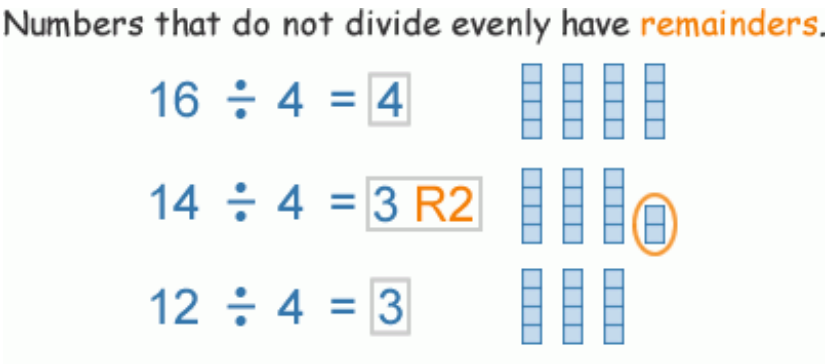
Number of full boxes: ☐
Things left over: ☐

Question 3:

There are **15** sharks that were collected for a new aquarium display. If a tank can hold no more than **4** sharks, how many tanks will be at their shark limit and how many sharks will be left over?

Number of full tanks: ☐
Sharks left over: ☐

Question 4:



14 ÷ 4 = ☐ R☐

Question 5:

There are **15** people who want to go through a corn maze. If **10** people are allowed in the corn maze at any one time, how many people need to wait before they get to go in?

Number of people who have to wait to go in the corn maze: ☐

Practice Set: One step word problems with remainders (round up)

Question 1:

There are 23 students that are riding in cars for a field trip. If a car can carry 4 students, how many cars are necessary to take all of the students?

[ ] cars

Question 2:

If a chairlift at a ski resort holds 4 people, how many chairs are necessary to carry a group of 25 people to the top of the mountain?

[ ] chairs

Question 3:

There are 38 eggs that need to be put away in egg cartons that hold 6 eggs each. How many egg cartons are necessary to put away all of the eggs?

[ ] egg cartons

Question 4:

There are going to be presentations at a school. If 40 people can fit in a room, how many rooms are necessary if there are a total of 90 people going to the presentations?

[ ] rooms

Question 5:

There are going to be presentations at a school. If 30 people can fit in a room, how many rooms are necessary if there are a total of 40 people going to the presentations?

[ ] rooms

Practice Set: One step word problems with remainders (round up and down)

Question 1:

A group of **7** friends all want to share their favorite movies with each other. If there are a total of **38** movies brought to share, which of the following best describes how the friends can most evenly divide the movies?

- 4 friends will borrow 6 movies.
  5 friends will borrow 5 movies.
- 3 friends will borrow 5 movies.
  4 friends will borrow 6 movies.
- 4 friends will borrow 5 movies.
  5 friends will borrow 6 movies.
- 3 friends will borrow 6 movies.
  4 friends will borrow 5 movies.

Question 2:

There are 9 friends playing a card game in which all of the 52 cards in a standard deck are distributed to the players. How many cards does each person get?

- 7 friends get 5 cards each
  2 friends get 4 cards each
- 7 friends get 6 cards each
  2 friends get 5 cards each
- 2 friends get 6 cards each
  7 friends get 5 cards each
- 2 friends get 5 cards each
  7 friends get 4 cards each

Question 3:

A school buys **23** new soccer balls and wants to split them between **3** teams. Which of the following best describes how many soccer balls each of the teams get if they are divided as evenly as possible?

- One team will get 7 soccer balls
  Two teams will get 8 soccer balls each
- One team will get 8 soccer balls
  Two teams will get 9 soccer balls each
- One team will get 9 soccer balls
  Two teams will get 8 soccer balls each
- One team will get 8 soccer balls
  Two teams will get 7 soccer balls each

Question 4:

There are **19** kids who are dividing themselves into **two** teams for a kickball game. Which of the following, best describes how many kids will be on each team?

- One team will have 9 kids
  One team will have 10 kids
- One team will have 7 kids
  One team will have 8 kids
- One team will have 8 kids
  One team will have 9 kids
- One team will have 10 kids
  One team will have 11 kids

Question 5:

There is a pie eating contest with **9** participants. There are **46** pies that are all eaten. Which of the following best describes how many pies each person ate if they are very evenly matched?

- 8 contestants ate 3 pies
  1 contestant ate 4 pies
- 8 contestants ate 4 pies
  1 contestant ate 5 pies
- 8 contestants ate 5 pies
  1 contestant ate 6 pies
- 8 contestants ate 6 pies
  1 contestant ate 7 pies

Practice Set: One step word problems with remainders (fractions)

Question 1:

There are **12** pieces of pie that are going to be split between **5** people. How many slices of pie does each person get? Choose the correct answer from the choices below.

- 2 1/4 pieces of pie per person
- 2 2/5 pieces of pie per person
- 2 3/4 pieces of pie per person
- 2 2/3 pieces of pie per person
- 2 5/6 pieces of pie per person

Question 2:

There are **25** gummy worms that **3** friends are going to split. How many gummy worms does each friend get? Choose the correct answer from the choices below.

- 8 2/5 gummy worms per friend
- 7 1/4 gummy worms per friend
- 7 1/3 gummy worms per friend
- 8 1/3 gummy worms per friend
- 7 2/5 gummy worms per friend

Question 3:

Two people bought a **13**-inch sandwich to share. How many inches of sandwich does each person get if they split it evenly? Choose the correct answer from the choices below.

- 5 3/4 inches of sandwich per person
- 5 1/3 inches of sandwich per person
- 6 1/2 inches of sandwich per person
- 6 1/3 inches of sandwich per person
- 5 1/2 inches of sandwich per person

Question 4:

Joseph has **3** hours to do his **2** homework assignments. How many hours does he have to do each assignment? Choose the correct answer from the choices below.

- 1 1/2 hours per homework assignment
- 1 hour per homework assignment
- 1 1/4 hours per homework assignment
- 3/4 hours per homework assignment
- 1 3/4 hours per homework assignment

Question 5:

There are **16** apples that will be cut and divided evenly between **3** pies. How many apples go into each pie? Choose the correct answer from the choices below.

- 5 2/3 apples per pie
- 5 1/3 apples per pie
- 6 apples per pie
- 5 apples per pie
- 4 2/3 apples per pie

Practice Set: Two-step word problems with remainders

Question 1:

There are **4** pizzas which each have **12** slices. These pizzas will be divided between **15** people. How many slices does each person get if they are split evenly? Choose the correct answer from the choices below.

- $4\ 7/15$
- $3\ 5/15$
- $4\ 5/15$
- $3\ 3/15$
- $3\ 7/15$

Question 2:

There are **5** kids who want to start a game of Red Rover. Then **12** more kids come to play. If there are **2** teams in Red Rover, which of the following best describes how many kids will be on each team?

- One team will have 10 kids
  One team will have 11 kids
- One team will have 7 kids
  One team will have 8 kids
- One team will have 8 kids
  One team will have 9 kids
- One team will have 9 kids
  One team will have 10 kids

Question 3:

If it takes **10** lemons to make a batch of lemonade and **5** lemons to make lemon bars, how many batches of both the lemonade and the bars can you make with **50** lemons.

Number of batches of both lemonade and lemon bars: [ ]

Question 4:

There are two boxes of Lego pieces. One box has **200** pieces and the other box has **115** pieces. Which of the following best describes how **4** people will divide the Lego pieces as evenly as possible?

- Three people will get 78 pieces
  One person will get 77 pieces

- Three people will get 77 pieces
  One person will get 76 pieces

- Three people will get 79 pieces
  One person will get 78 pieces

- Three people will get 76 pieces
  One person will get 75 pieces

Question 5:

Victoria searched her house for quarters. She started with **17** quarters and found **6** more quarters. She then goes to the arcade. If a game costs **2** quarters to play, how many games can she play and how many quarters are left over?

Victoria can play [ ] times and there will be [ ] quarters left over.

Correct Answers

Lesson: Multistep Word Problems

Practice Set: Estimate products

Question 1:
1800

Question 2:
1550

Question 3:
1800

Question 4:
120000

Question 5:
2800

Practice Set: Estimate quotients

Question 1:
2

Question 2:
3

Question 3:
1

Question 4:
10

Question 5:
2

Practice Set: Estimate products word problems

Question 1:
500

Question 2:
160

Question 3:
12000

Question 4:
1200

Question 5:
400

Practice Set: Estimate quotients word problems

Question 1:
4

Question 2:
5

Question 3:
60

Question 4:
20

Question 5:
3

Practice Set: Solve one-step word problems review

Question 1:
6

Question 2:
15

Question 3:
9

Question 4:
MC2

Question 5:
18

Practice Set: Solve two-step word problems review

Question 1:
79

Question 2:
12

Question 3:
12

Question 4:
14

Question 5:
85

Practice Set: Solve multistep word problems with four operations

Question 1:
100

Question 2:
80

Question 3:
156

Question 4:
127

Question 5:
96

Practice Set: Represent multistep word problems with variable equations

Question 1:
MC2

Question 2:
MC4

Question 3:
MC2

Question 4:
MC2 | MC3

Question 5:
MC4

Practice Set: Solve multistep word problems with variable equations

Question 1:
604,800

Question 2:
MC1 | MC3 | MC4 | MC5

Question 3:
1

Question 4:
30

Question 5:
MC2

Practice Set: Assess the reasonableness of answers using rounding and mental computation 5

Question 1:
MC2

Question 2:
MC3

Question 3:
MC2

Question 4:
MC2

Question 5:
MC2

Practice Set: Assess the reasonableness of answers using rounding and mental computation 6

Question 1:
MC2

Question 2:
MC1

Question 3:
MC2

Question 4:
MC1

Question 5:
MC5

Practice Set: One step word problems with remainders (left over/discard left over)

Question 1:
6

Question 2:
2|10

Question 3:
3|3

Question 4:
3 |2

Question 5:
5

Practice Set: One step word problems with remainders (round up)

Question 1:
6

Question 2:
7

Question 3:
7

Question 4:
3

Question 5:
2

Practice Set: One step word problems with remainders (round up and down)

Question 1:
MC4

Question 2:
MC2

Question 3:
MC1

Question 4:
MC1

Question 5:
MC3

Practice Set: One step word problems with remainders (fractions)

Question 1:
MC2

Question 2:
MC4

Question 3:
MC3

Question 4:
MC1

Question 5:
MC2

Practice Set: Two-step word problems with remainders

Question 1:
MC4

Question 2:
MC3

Question 3:
3

Question 4:
MC3

Question 5:
11|1