KEY

NAME DATE PERIOD

Tuesday 3/10

Unit 5, Lesson 9: Using the Partial Quotients Method

/8

1. Here is one way to find 2,105 ÷ 5 using partial quotients.

```
  421
    1
   20
  400
5 2105
 -2000
  105
 - 100
    5
 -   5
    0
```

Show a different way of using partial quotients to divide 2,105 by 5.

```
    1
   20
  200
  200
5 2105
 -1000   5×200
  1105
 -1000   5×200
   105
 - 100   5×20
     5
 -   5   5×1
     0
```

/1

2. Andre and Jada both found 657 ÷ 3 using the partial quotients method, but they did the calculations differently, as shown here.

```
  219
    9
   10
  200
3 657
 -600
   57
 - 30
   27
 - 27
    0
```

Andre's Work

```
  219
    9
   60
  100
   50
3 657
 -150
  507
 -300
  207
 -180
   27
 - 27
    0
```

Jada's Work

a. How is Jada's work similar to and different from Andre's work?

similar
- Both ended up with 219
- Subtracted groups of 3

different
- Subtracted different groups of 3
- 4 steps

b. Explain why they have the same answer.

Because there are 219 groups of 3 in 657, how you divide will change the number of steps, but not the answer ☺

/2

3. Which might be a better way to evaluate 1,150 ÷ 46: drawing base-ten diagrams or using the partial

NAME DATE PERIOD

quotients method? Explain your reasoning. Partial Quotients - it would take a long time to draw 1,150 in a diagram. 1

4. Here is an incomplete calculation of 534 ÷ 6.

Write the missing numbers (marked with "?") that would make the calculation complete.

```
   8 9
     9
   8 0
6 | 5 3 4
  - 4 8 0   ?
      5 4   ?
    - 5 4   ?
        0
```

24
2
2
10
10
43 | 1032
430
602
430
172
86
86
86

10.43
10.43
2.43
2.43

/3

5. Use the partial quotients method to find 1,032 ÷ 43.

6. Which of the polygons has the greatest area?

A. A rectangle that is 3.25 inches wide and 6.1 inches long. $3.25 \times 6.1 = 19.825 \text{ in}^2$
B. A square with side length of 4.6 inches. $4.6 \times 4.6 = 21.16 \text{ in}^2$
C. A parallelogram with a base of 5.875 inches and a height of 3.5 inches. $5.875 \times 3.5 = 20.5625 \text{ in}^2$
D. A triangle with a base of 7.18 inches and a height of 5.4 inches. $\frac{1}{2} \cdot b \cdot h = A$ $\frac{1}{2} \times 7.18 \times 5.4 = 19.386 \text{ in}^2$

/1

(from Unit 5, Lesson 8)

Challenge

7. One micrometer is a millionth of a meter. A certain spider web is 4 micrometers thick. A fiber in a shirt is 1 hundred-thousandth of a meter thick.

.000004

.00010

a. Which is wider, the spider web or the fiber? Explain your reasoning.

Fiber

.00001 > .000004

b. How many meters wider?

.00010
− .000004
.000006