Unit 3, Lesson 6: Interpreting Rates

1. A pink paint mixture uses 4 cups of white paint for every 3 cups of red paint.

   The table shows different quantities of red and white paint for the same shade of pink. Complete the table.

white paint (cups)	red paint (cups)
4	3
$\frac{4}{3}$	1
1	$\frac{3}{4}$
$\frac{16}{3}$	4
5	$\frac{15}{4}$

$\frac{4}{3} \cdot \frac{4}{1} = \frac{16}{3} =$

/4

2. A farm lets you pick 3 pints of raspberries for $12.00.

   a. What is the cost per pint? $ 4

   b. How many pints do you get per dollar? $\frac{1}{4}$ pint

   c. At this rate, how many pints can you afford for $20.00?
      5 pints

   d. At this rate, how much will 8 pints of raspberries cost?
      $ 32

pints	$
3	12
1	4
$\frac{3}{12}$	1
5	20
8	32

/4

3. Han and Tyler are following a polenta recipe that uses 5 cups of water for every 2 cups of cornmeal.

   ○ Han says, "I am using 3 cups of water. I will need $1\frac{1}{5}$ cups of cornmeal."
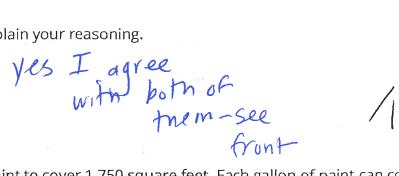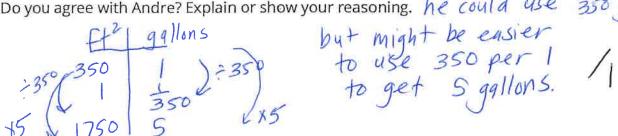   ○ Tyler says, "I am using 3 cups of cornmeal. I will need $7\frac{1}{2}$ cups of water."

Next page ☺

Recipe

W	CM
5	2
$\frac{5}{2}$	1
1	$\frac{2}{5}$

Han
W	CM
3	$1\frac{1}{5}$, $\frac{6}{5}$
1	$\frac{2}{5}$

Tyler
W	CM
$7\frac{1}{2}$	3
$\frac{5}{2}$	1

NAME   DATE   PERIOD

Do you agree with either of them? Explain your reasoning.

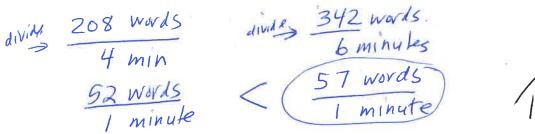*yes I agree with both of them – see front* /1

4. A large art project requires enough paint to cover 1,750 square feet. Each gallon of paint can cover 350 square feet. Each square foot requires $\frac{1}{350}$ of a gallon of paint.

Andre thinks he should use the rate $\frac{1}{350}$ gallons of paint per square foot to find how much paint they need. Do you agree with Andre? Explain or show your reasoning. *he could use $\frac{1}{350}$ gallons*
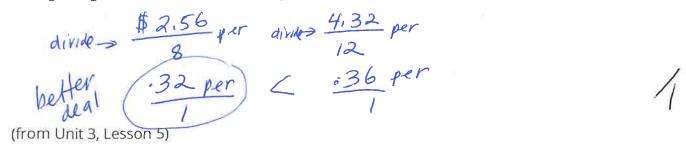
but might be easier to use 350 per 1 to get 5 gallons. /1

ft²	gallons
350	1
1	$\frac{1}{350}$
1750	5

5. Andre types 208 words in 4 minutes. Noah types 342 words in 6 minutes. Who types faster? Explain your reasoning.

divide $\frac{208 \text{ words}}{4 \text{ min}}$ *divide* $\frac{342 \text{ words}}{6 \text{ minutes}}$

$\frac{52 \text{ words}}{1 \text{ minute}} < \boxed{\frac{57 \text{ words}}{1 \text{ minute}}}$ /1

(from Unit 3, Lesson 5)

6. A corn vendor at a farmer's market was selling a bag of 8 ears of corn for $2.56. Another vendor was selling a bag of 12 for $4.32. Which bag is the better deal? Explain or show your reasoning.

divide $\frac{\$2.56}{8}$ *per*   *divide* $\frac{4.32}{12}$ *per*

better deal $\boxed{\frac{.32 \text{ per}}{1}} < \frac{.36 \text{ per}}{1}$ /1

(from Unit 3, Lesson 5)

7. A soccer field is 100 meters long. What could be its length in yards?

(a) 33.3   (b) 91   (c) 100   (d) 109   *yards shorter need more*   /1

Total   /13   6