Name Key Period _____ Monday, September 25, 2017

Unit 2 Advanced Review

Multiply or divide. If fractions, write your answers in SIMPLEST FORM.

1. $6.4 \times .57 =$ 3.648

$^{2}\not{6}.4$ ①

$\times .57$ +②

448

+3200

3.648 ③

2. $\frac{3}{4} \times \frac{12}{15} =$ $\frac{3}{5}$

$\frac{3}{4} \times \frac{12}{15} = \frac{36 \div 12}{60 \div 12} = \frac{3}{5}$

$\frac{{}^{1}\not{3}}{{}_{1}\not{4}} \times \frac{\not{12}^{3}}{\not{15}_{5}} = \frac{3}{5}$

3. $\frac{7}{12} \div \frac{5}{6} =$ $\frac{7}{10}$

$\frac{7}{12} \div \frac{5}{6} = \frac{7}{12} \times \frac{6}{5} = \frac{42 \div 6}{60 \div 6} = \frac{7}{10}$

$^{2}\frac{7}{\not{12}} \times \frac{\not{6}^{1}}{5} = \frac{7}{10}$

4. $0.382 \times 9.5 =$ 3.629

$^{*}.382$ ③

$\times\ 9.5$ +①

$^{1}1910$

+34380

3.6290 ④

5. $5\frac{1}{4} \times 2\frac{1}{3} =$ $\frac{49}{4} = 12\frac{1}{4}$

$5^{+1}_{\times 4}$ $2^{+1}_{\times 3}$

$\frac{21}{4} \times \frac{7}{3} = \frac{147 \div 3}{12 \div 3} = \frac{49}{4} = 12\frac{1}{4}$

$^{7}\frac{\not{21}}{4} \times \frac{7}{\not{3}_{1}} = \frac{49}{4}$

6. $2\frac{3}{8} \times 16 =$ 38

$2^{+3}_{\times 8}$

$\frac{19}{8} \times \frac{16}{1} = \frac{304 \div 8}{8 \div 8} = 38$

$\frac{19}{\not{18}} \times \frac{\not{16}^{2}}{1} = \frac{38}{1} = 38$

7. $10.44 \div 4.5 =$ 2.32

$$
\begin{array}{r}
2.32 \\
4.5\overline{)10440} \\
-90 \\
\hline
144 \\
-135 \\
\hline
90 \\
-90 \\
\hline
0
\end{array}
$$

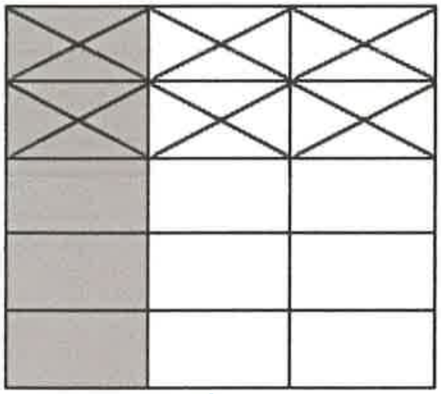
8. $3\frac{1}{5} \div 1\frac{7}{9} =$ $\frac{9}{5} = 1\frac{4}{5}$

$3^{+1}_{\times 5}$ $1^{+7}_{\times 9}$

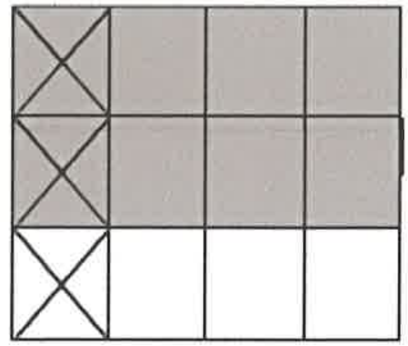
$\frac{16}{5} \div \frac{16}{9} = \frac{16}{5} \times \frac{9}{16} = \frac{144 \div 16}{80 \div 16} = \frac{9}{5}$

$^{1}\frac{\not{16}}{5} \times \frac{9}{\not{16}_{1}} = \frac{9}{5} = 1\frac{4}{5}$

Write multiplication sentences for the models below and solve them.



9. $\frac{1}{3} \times \frac{2}{5} = \frac{2}{15}$



10. $\frac{1}{4} \times \frac{2}{3} = \frac{2}{12} = \frac{1}{6}$

11. Marcus is a point guard on the basketball team. In three games he scored 0.8 of the total number of points his team scored. The team scored 65 points in the first game, 72 points in the second game and 58 points in the third game. What was the number of points Marcus scored in these three games?

65 + 72 + 58 = total

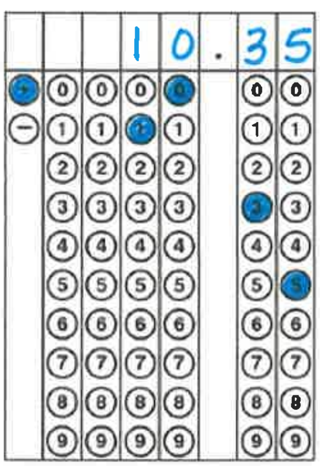
65 + 72 + 58 = 195 points

.8 of 195 = 195 × .8

195. × .8 = 156.0

156 points

12. Three pounds of shrimp cost $6.90. At this price, how much will 4.5 pounds of shrimp cost? Record your answer and fill in the bubbles below. Be sure to use the correct place value.



$2.30 per pound

6.90 ÷ 3 = 2.30

2.30 × 4.5: 1150 + 9200 = 10.350

$10.35

13. Write a multiplication expression that is equivalent to the division expression $\frac{3}{4} \div \frac{4}{5}$.

$\frac{3}{4} \times \frac{5}{4}$

14. A gardener has been hired to do landscaping in a local neighborhood. He has 6 bags of mulch. Four of the bags cover 6.5 square feet each and two of the bags cover 8 square feet each. If each flowerbed requires 10.5 square feet of mulch, how many flowerbeds can be landscaped by the gardener?

$6.5 \times 4 = 26.0$ $2 \times 8 = 16$ $26 + 16 = 42$ $420 \div 105 = 4$

4 flowerbeds

15. Mr. Morchat has a $\frac{1}{3}$ acre of land. He planted green beans on $\frac{3}{5}$ of this plot. On how much land did Mr. Morchat plant green beans?

$\frac{3}{5}$ of $\frac{1}{3} = \frac{3}{5} \times \frac{1}{3} = \frac{3 \div 3}{15 \div 3} = \frac{1}{5}$ of an acre

$\frac{1}{5} \times \frac{1}{1} = \frac{1}{5}$

16. Tyler helped his sister prepare for her piano concert. He worked with her 4 times on weekdays, spending $1\frac{1}{4}$ hours each time. Then over the weekend he helped her for 2 more hours. How many hours did Tyler spend working with his sister?

$4 \times 1\frac{1}{4} = \frac{4}{1} \times \frac{5}{4} = \frac{20}{4} = \frac{5}{1} = 5$ $5 + 2 =$ 7 total hours

17. Abby sold 64 boxes of cookies. If $\frac{5}{8}$ of the cookies she sold were peanut butter, how many boxes of peanut butter cookies did she sell?

$\frac{5}{8}$ of $64 = \frac{5}{8} \times \frac{64}{1} = \frac{320 \div 8}{8 \div 8} = \frac{40}{1} =$ 40 boxes

$\frac{5}{1} \times \frac{8}{1} = \frac{40}{1} = 40$

18. Taylor is cutting strips of paper to make bookmarks. Each bookmark needs to be $\frac{1}{6}$ of a foot wide. She has 8 feet of paper. How many bookmarks will she be able to make?

$8 \div \frac{1}{6} = \frac{8}{1} \times \frac{6}{1} = \frac{48}{1} =$ **48 bookmarks**

19. Mrs. Murphy's class is making pillowcases. Each pillowcase uses $\frac{3}{4}$ of a yard of fabric. How many pillowcases can they make out of $12\frac{1}{2}$ yards of fabric?

$12\frac{1}{2} \div \frac{3}{4} = \frac{25}{2} \times \frac{4}{3} = \frac{100}{6} \div \frac{2}{2} = \frac{50}{3} = 16\frac{2}{3}$ so **16 pillowcases with fabric left over**

$12 \times \frac{2+1}{2}$

$\frac{25}{2} \times \frac{4^2}{3} = \frac{50}{3}$

20. Maggie had 42 tickets for games at a fall fest. She used $\frac{1}{7}$ of the tickets to do the cupcake walk. She then used $\frac{1}{2}$ of the tickets she had left to play in the bounce house. Her friend, Kourtney gave her 7 tickets when she got out of the bounce house. How many tickets did Maggie have **after** seeing Kourtney?

$\frac{1}{7}$ of $42 = \frac{1}{7} \times \frac{42}{1} = \frac{42}{7} = 6$

$42 - 6 = 36$

$\frac{1}{2}$ of $36 = \frac{1}{2} \times \frac{36}{1} = \frac{36}{2} = 18$

$36 - 18 = 18$

$18 + 7 =$ **25 tickets left**

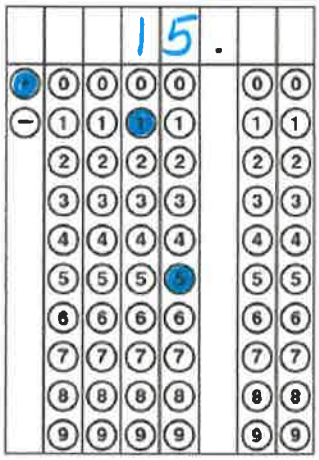
21. Tanner buys $8\frac{1}{4}$ pounds of cat food. He will put equal amount of food into 11 storage containers. How much cat food will be in each container?

$8\frac{1}{4} \div 11 = \frac{33}{4} \div \frac{11}{1} = \frac{33}{4} \times \frac{1}{11} = \frac{33 \div 11}{44 \div 11} = \frac{3}{4}$ of a cup

$8 \times \frac{1+1}{4}$

$\frac{3}{4} \times \frac{1}{\cancel{11}_1} = \frac{3}{4}$

22. Jack bought a box of 60 paper clips. He used 0.75 of the clips in the box. How many clips did he have **left**? Record your answer and fill in the bubbles below. Be sure to use the correct place value.



$.75$ of $60 = .75$ (2) $\times 60 + 0$

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$+4500$

4500 (2)

45 clips used

$60 - 45 =$ **15 left**

or If he used .75, then .25 is left, so

$.25$ (2) $\times 60 + 0$

00

$+1500$

1500 (2)