Name: Key #____

Date: _____

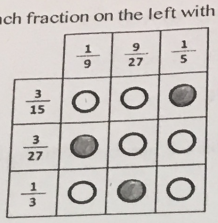
STUDY GUIDE

Fractions:

As Division, Multiplication, & Division

Module 4: End of Module

1. Darken the bubbles to match each fraction on the left with its equivalent fraction on the top row.



2. There are 4 pieces of wire. Each one is 3 and 1-sixth inches long. Select ALL of the expressions that would give the total length of all the ropes. $4 \times 3\frac{1}{6}$

A. $4 \times \frac{18}{6}$

B. $\frac{19}{6} + \frac{19}{6} + \frac{19}{6} + \frac{19}{6}$

C. $3\frac{1}{6} + 3\frac{1}{6} + 3\frac{1}{6} + 3\frac{1}{6}$

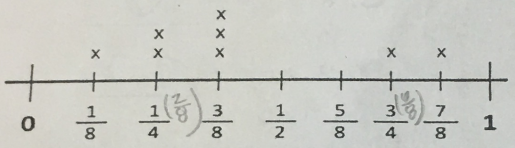
$4 \times \frac{19}{6}$

D. $\frac{1}{4} \times 3\frac{1}{6}$

E. $\frac{18}{6} + \frac{18}{6} + \frac{18}{6} + \frac{18}{6}$

F. $4 \times \frac{19}{6}$

3. What is the total number of cups represented on the line plot below?



Pints

$\frac{1}{8} + \frac{4}{8} + \frac{9}{8} + \frac{6}{8} + \frac{7}{8}$

$\frac{27}{8}$ pints = $6\frac{3}{4}$ cups

$\frac{27}{8} \times 2 = \frac{27 \times 2}{4 \cancel{8}} = \frac{27}{4}$

$6\frac{3}{4}$

4. A wall is built for a play that has a width of 5 and a half feet and a length of 15 feet. Write an expression using multiplication with an improper fraction that can be used to find the area of the wall, then find the area.

TS: The area of the wall is $82\frac{1}{2}$ ft.

area = lxw

$5\frac{1}{2} \times 15 = \frac{11 \times 15}{2} = \frac{165}{2} = 82\frac{1}{2}\ ft^2$

5. Complete each math sentence below with the correct comparison symbol.

A. $\frac{6}{5} \times 17 \ (>) \ 17$

B. $\frac{11}{12} \times \frac{8}{7} \ (<) \ \frac{8}{7}$

C. $6 \times \frac{4}{5} \ (<) \ 6$

D. $22 \times \frac{5}{5} \ (>) \ \frac{5}{5}$

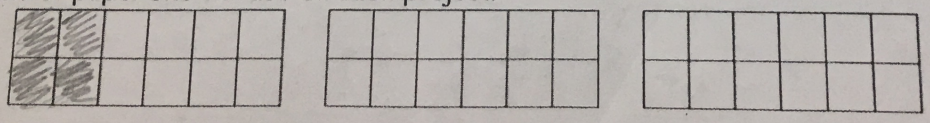
E. $22 \times \frac{5}{5} \ (=) \ 22$

F. $\frac{6}{5} \times 17 \ (>) \ \frac{6}{5}$

G. $\frac{11}{12} \times \frac{8}{7} \ (>) \ \frac{11}{12}$

H. $6 \times \frac{4}{5} \ (>) \ \frac{4}{5}$

6. Janice has 3 pieces of construction paper. She wants to use the same amount of paper on the project she is working on and the next 8 projects she has planned. Shade the number of sections of paper she will use on each project.



36 pieces ÷ 9 projects = 4 per project

7 There are three bags of sugar. Each bag is four-fifths full. Circle each expression below that can be used to find the total number of bags of sugar there are in all. $3 \times \frac{4}{5}$

A. $4 \div (5 \times 3)$
B. $5 \div 4 \times 3$
C. $3 \times \frac{4}{5}$
D. $4 \times 3 \div 5$
E. $5 \times (3 \div 4)$
F. $(4 \times 3) \div 5$
G. $4 \times \frac{3}{5}$
H. $5 \times \frac{3}{4}$

9. In the expression below, s represents an unknown positive number. Which statement is true about the value of the expression?

$$s \times \frac{7}{8}$$

A. The product is always equal to s when s is less than 1.
B. The product is always less than $\frac{7}{8}$ when s is less than 1.
C. The product is always greater than s when s is less than 1.
D. The product is always greater than $\frac{7}{8}$ when s is greater than 1.

10. Find the value of each expression below.

A. $6 \div \frac{1}{7} = 42$ (6×7)
B. $7 \div \frac{1}{6} = 42$ (7×6)
C. $8 \div \frac{1}{2} = 16$ (8×2)
D. $9 \div \frac{1}{3} = 27$ (9×3)

11. What is the are of a rectangle with a length of 2 and 1-fourth feet ~~and a width of 5 feet~~.

$2\frac{1}{4} \times 5 = \frac{9}{4} \times 5 = \frac{45}{4} = 11\frac{1}{4}$ ft^2

12. What is 1-fourth of 5.6?

① $\frac{1}{4} \times \frac{56}{10} = \frac{56}{40} = 1\frac{16}{40} = 1\frac{2}{5}$

② $0.25 \times 5.6 = 1.400$

$1\frac{2}{5}$ or 1.4

13. Evaluate each of the following expressions:

$7 \div \frac{1}{8} = 56$ (7×8)
$1.3 \times 15 = 19.5$
$1.5 \div 0.7 = \frac{1.5 \times 10}{0.7 \times 10} = \frac{15}{7} = 2\frac{1}{7}$
$4 \div \frac{1}{6} = 24$ (4×6)
$\frac{1}{6} \div 4 = \frac{1}{6} \times \frac{1}{4} = \frac{1}{24}$
$12.8 \div \frac{3}{4} = \frac{12.8 \times 100}{0.75 \times 100} = \frac{1280}{75} = 17\frac{5}{75} = 17\frac{1}{15}$

14. Write each of the following fraction values as decimals.

$\frac{3}{4} = 0.75$ OR $\frac{6 \times 125}{8 \times 125} = \frac{750}{1000} = 0.750$

$6\frac{23 \times 4}{25 \times 4} = 6\frac{92}{100} = 6.92$

15. Convert each of the following measurements.

$5\frac{3}{4}$ ft = 69 in
$= 5\frac{3}{4} \times (1 \text{ ft})$
$= 5\frac{3}{4} \times (12 \text{ in})$
$= \frac{23 \times 12}{4} = 69$

$8\frac{1}{4}$ qt = $16\frac{1}{2}$ pt
$= 8\frac{1}{4} \times (1 \text{ qt})$
$= 8\frac{1}{4} \times (2 \text{ pt})$
$= \frac{33 \times 2}{4} = \frac{33}{2} = 16\frac{1}{2}$

$2\frac{1}{3}$ yd = 7 ft
$= 2\frac{1}{3} \times (1 \text{ yd})$
$= 2\frac{1}{3} \times (3 \text{ ft})$
$= \frac{7 \times 3}{3} = 7$

$4\frac{4}{5}$ hr = 288 min
$= 4\frac{4}{5} \times (1 \text{ hr})$
$= 4\frac{4}{5} \times (60 \text{ min})$
$= \frac{24 \times 60}{5} = 288$