Name _____ Date _____

1. Circle the expression equivalent to "the difference between 7 and 4, divided by a fifth."

$7 + (4 \div \frac{1}{5})$ $\frac{7-4}{5}$ $(7 - 4) \div \frac{1}{5}$ $\frac{1}{5} \div (7 - 4)$

2. Circle the expression(s) equivalent to "42 divided by the sum of $\frac{2}{3}$ and $\frac{3}{4}$."

$(\frac{2}{3}+\frac{3}{4}) \div 42$ $(42 \div \frac{2}{3}) + \frac{3}{4}$ $42 \div (\frac{2}{3}+\frac{3}{4})$ $\frac{42}{\frac{2}{3}+\frac{3}{4}}$

3. Fill in the chart by writing the equivalent numerical expression or expression in word form.

	Expression in word form	Numerical expression
a.	A fourth as much as the sum of $3\frac{1}{8}$ and 4.5	$\frac{1}{4} \times (3\frac{1}{8} + 4.5)$
b.	The sum of $3\frac{1}{8}$ and 4.5 divided by 5.	$(3\frac{1}{8} + 4.5) \div 5$
c.	Multiply $\frac{3}{5}$ by 5.8, then halve the product	$(\frac{3}{5} \times 5.8) \div 2$
d.	$\frac{1}{6}$ as much as the difference between 4.8 and $\frac{1}{2}$.	$\frac{1}{6} \times (4.8 - \frac{1}{2})$
e.	The difference between 8 and the quotient of $\frac{1}{2}$ and 9.	$8 - (\frac{1}{2} \div 9)$

4. Compare the expressions in 3(a)and 3(b). Without evaluating, identify the expression that is greater. Explain how you know.

3(a) is bigger because both expressions have $(3\frac{1}{8} + 4.5)$ but 3(b) divides it by 5, while 3(a) only divides it by 4. This makes 3(a) bigger.

5. Evaluate the following expressions.

a. $(11-6)\div\frac{1}{6}$

$= 5 \div \frac{1}{6}$

$= 5 \times 6$

$= 30$

b. $\frac{9}{5}\times(4\times\frac{1}{6})$

$= \frac{9}{5} \times \frac{4}{6}$

$= \frac{36}{30} = 1\frac{6}{30}$

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

c. $\frac{1}{10}\div(5\div\frac{1}{2})$

$= \frac{1}{10} \div (5 \times 2)$

$= \frac{1}{10} \div 10$

$= \frac{1}{100}$

d. $\frac{3}{4}\times\frac{2}{5}\times\frac{4}{3}$

$= \frac{3\times2\times4}{4\times5\times3}$

$= \frac{3\times2\times4}{4\times5\times3}$

$= \frac{2}{5}$

e. 50 divided by the difference between $\frac{3}{4}$ and $\frac{5}{8}$

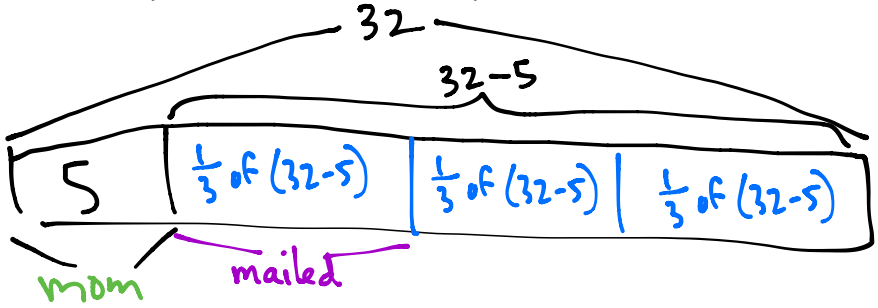
$\frac{50}{\frac{3}{4}-\frac{5}{8}} = \frac{50}{\frac{6}{8}-\frac{5}{8}} = \frac{50}{\frac{1}{8}}$

$50 \div \frac{1}{8} = 50 \times 8 = 400$

6. Lee is sending out 32 birthday party invitations. She gives 5 invitations to her mom to give to family members. Lee mails a third of the rest, and then she takes a break to walk her dog.

a. Write a numerical expression to describe how many invitations Lee has already mailed.

$(32-5)\div3$



b. Which expression matches how many invitations still need to be sent out?

$32-5-\frac{1}{3}(32-5)$ $\quad \frac{2}{3}\times32-5$ $\quad (32-5)\div\frac{1}{3}$ $\quad \frac{1}{3}\times(32-5)$