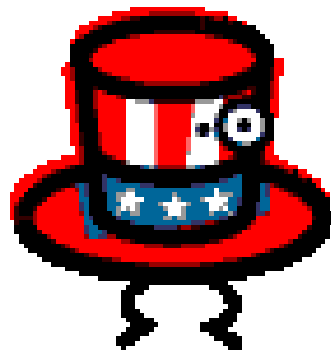


1st 9 Wks Study Guide Rvw

What will you get on the test?



You need:

- ❑ Completed review guide
- ❑ Clean sheet of paper (for it)
- ❑ Writing instrument to fix errors
- ❑ Calculator to practice corrections

Caution:

Some of the problem
numbers have changed
but the problems are still
current!

Caution2:

You can view the videos
at home but not at school





Order from least to greatest

Negatives --- 0 ---- Positives

[Video](#)

1) ~~12~~, ~~-45~~, ~~-68~~, ~~-90~~, ~~55~~, ~~34~~

Order your positives first

12, 34, 55

Order your Negatives next (closer to zero, larger the number)

-90, -68, -45

Put it all together

-90, -68, -45, 12, 34, 55

2) ~~33~~, ~~98~~, ~~-23~~, ~~78~~, ~~46~~, ~~-65~~

-65 , -23, 33, 46 , 78 , 98



Finding absolute value

[Video](#)

Distance is always
positive— So is absolute
value!!!

3. $|-6| = \underline{6}$

4. $|11| = \underline{11}$

5. $|-20| = \underline{20}$

Integer Rules

Video

Adding

Same sign = add and keep

Different sign = subtract

Take sign of larger number

Subtracting

Keep Flip Change



Integer Rules

Video

Multiplying and Dividing

Same sign = Pos

Different sign = Neg

6. $4 + (-7) = -3$



Different- Subtract

7. $-3 - 6 = -9$

K	F	C
---	---	---

-3	+	-6
----	---	----

Same Add & keep

8. -1×9

Different- neg

$= -9$

9. $5 \div (-5)$

Different- neg

$= -1$



10. $-8 \div (-2)$

Same-pos

$= 4$

11. $6 + (-9)$ -3

Different- Subtract

12. $-8 \times (-6)$

Same-pos

$= 48$

13. $4 - (-1) = 5$

K	F	C
---	---	---

4	+	1
---	---	---

Same Add & keep

$$14. \quad -9 - (-9) = 0$$

K	F	C
---	---	---

-9	+	9
----	---	---

Diff Sub



$$15. \quad -7 + 2 = -5$$

Different- Subtract

$$16. \quad 4 \div (-2)$$

Different- neg

$$= -2$$

$$17. \quad -6 \times 2$$

Different- neg

$$= -12$$

Conversions

Fractions to decimals

Video

$$\frac{6}{50}$$

$$\frac{1}{3}$$

$$\frac{2}{10}$$

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

Bottom into top

$$50 \overline{)6}$$

$$= 0.12$$

$$3 \overline{)1}$$

$$= 0.\bar{3}$$

$$10 \overline{)2}$$

$$= 0.2$$

$$5 \overline{)1}$$

$$= 0.2$$

Terminator

Repeater

Terminator

Terminator

Decimal to fraction in simplest form

Read it Video

$$\begin{array}{l} 0.52 \\ \text{52 hundredths} \end{array} \quad \begin{array}{l} \frac{52}{100} \div 4 \\ \frac{13}{25} \end{array}$$

$$\begin{array}{l} 0.006 \\ \text{6 Thousandths} \end{array} \quad \begin{array}{l} \frac{6}{1000} \div 2 \\ \frac{3}{500} \end{array}$$

$$\begin{array}{l} 0.32 \\ \text{32 hundredths} \end{array} \quad \begin{array}{l} \frac{32}{100} \div 4 \\ \frac{8}{25} \end{array}$$

$$\begin{array}{l} 0.347 \\ \text{375 thousandths} \end{array} \quad \begin{array}{l} \frac{347}{1000} \end{array}$$

Video

Terminator or Repeater	Fraction	Decimal	Percent
T	6/50	0.12	12%
	13/25	.52	52%
	347/1000	0.347	34.7%
R	1/3	0.3...	33%
	3/500	.006	0.6%
T	2/10	0.2	20%
	12/25	0.48	48%
	8/25	.32	32%
T	1/5	0.2	20%



Got the hang of it??

Adding and Subtracting Decimals

Video

Line up the
decimal points

$$\begin{array}{r} 76.3 \\ - 34.1 \\ \hline 42.2 \end{array}$$

Line up the
decimal points

$$\begin{array}{r} 4.321 \\ - 4.1 \\ \hline 0.221 \end{array}$$

Multiplying Decimals

Video

$$\begin{array}{r} 0.67 \\ \times 0.4 \\ \hline 0.268 \end{array}$$

2 decimal places

1 decimal place

3 decimal places

Dividing Decimals [Video](#)

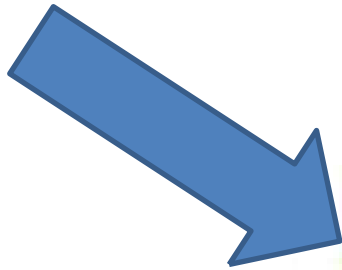
$$\begin{array}{r} 1 \\ 5 \overline{) 68.5} \\ \underline{-5} \\ 1 \end{array}$$

$$\begin{array}{r} 13 \\ 5 \overline{) 68.5} \\ \underline{-5} \downarrow \\ 18 \\ \underline{-15} \\ 3 \end{array}$$

$$\begin{array}{r} 13.7 \\ 5 \overline{) 68.5} \\ \underline{-5} \downarrow \\ 18 \\ \underline{-15} \downarrow \\ 35 \\ \underline{-35} \\ 0 \end{array}$$


So, $6.85 \div .5 = 13.7$

Dividing Decimals



$$\begin{array}{r} 5 \overline{) 68.5} \end{array}$$

Red checkmarks are placed under the decimal points in both the divisor (5) and the dividend (68.5).

$$\begin{array}{r} 5 \overline{) 68.5} \end{array}$$

A red arrow points up to the decimal point in the divisor (5).

don't need



$$\begin{array}{r} 5 \overline{) 68.5} \end{array}$$


$$18.) -32.7 + 62.82 =$$

Different- Subtract

$$\begin{array}{r} 62.82 \\ -32.7 \\ \hline 30.12 \end{array}$$

30.12

$$19.) -51 - (-81.623) =$$

K F C



$$\begin{array}{r} -51 \\ + \\ 81.623 \end{array}$$

Diff Sub

$$\begin{array}{r} 81.623 \\ 51.000 \\ \hline 30.623 \end{array}$$

30.623

$$20.) \quad 33.208 \div \underline{-4} =$$

$$\begin{array}{r} \textcolor{red}{-8.302} \\ 4 \overline{) 33.208} \end{array}$$

$$21. \quad \begin{array}{r} -14.3 \\ \underline{-6.2} \end{array}$$

$$\textcolor{blue}{88.66}$$

$$22.) \quad -24 \div \underline{0.32} =$$

$$\begin{array}{r} \textcolor{red}{-75} \\ 0.32 \overline{) 24} \end{array} \quad \begin{array}{r} \textcolor{red}{-75} \\ 32 \overline{) 2400} \end{array}$$

$$23. \quad \begin{array}{r} 14.7 \\ \underline{0.13} \end{array}$$

$$\textcolor{blue}{1.911}$$

Simplifying Fractions

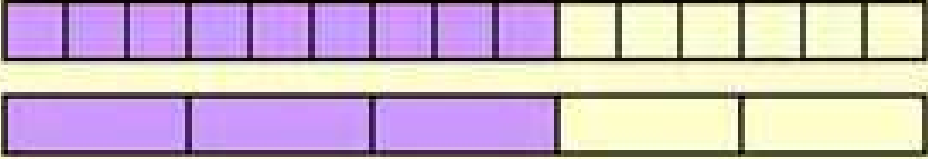
Video

Fractions-Simplifying

Factors are 1, 3, 9
HCF, So $9 \div 3 =$

$$\frac{9}{15} = \frac{3}{5}$$

HCF, So $15 \div 3 =$
Factors are 1, 3, 5, 15



$$\frac{4}{10} \div 2 = \frac{2}{5}$$

$$\frac{18}{24} \div 6 = \frac{3}{4}$$

$$\frac{18}{30} \div 6 = \frac{3}{5}$$

$$\frac{25}{30} \div 5 = \frac{5}{6}$$

25. Improper to mixed Video

Convert $\frac{20}{3}$ to a mixed number

Divide the numerator by the denominator

$$20 \div 3 = 6 \text{ plus } 2 \text{ remainder}$$

$$\frac{20}{3} = 6 \frac{2}{3}$$

6 becomes the whole number

2 is the numerator of the fraction as shown

3 is the denominator

$$\frac{11}{3}$$

$$11 / 3 = 3 \text{ r } 2$$

$$3\frac{2}{3}$$

$$\frac{9}{4}$$

$$9 / 4 = 2 \text{ r } 1$$

$$2\frac{1}{4}$$

$$\frac{25}{7}$$

$$25 / 7 = 3 \text{ r } 4$$

$$3\frac{4}{7}$$

$$\frac{11}{6}$$

$$11 / 6 = 1 \text{ r } 5$$

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

26. Mixed to improper

Convert $2\frac{3}{4}$ to an improper fraction.

$$2\frac{3}{4} = \frac{(2 \times 4) + 3}{4} = \frac{11}{4}$$

The whole number = 2, the denominator = 4

Multiply together $2 \times 4 = 8$

Add numerator (3) $8 + 3 = 11$

The numerator of the improper fraction is 11 and the denominator is 4

$$4\frac{1}{11}$$

$$11 \times 4 + 1 = 45$$

$$\frac{45}{11}$$

$$3\frac{3}{7}$$

$$7 \times 3 + 3 = 24$$

$$\frac{24}{7}$$

$$4\frac{4}{5}$$

$$5 \times 4 + 4 = 24$$

$$\frac{24}{5}$$

Adding and Subtracting Fraction

[video](#) [video](#)

$$\frac{4}{3} - \frac{2}{7}$$

$$\frac{4}{3} \begin{matrix} (\times 7) \\ (\times 7) \end{matrix} = \frac{28}{21}$$

$$\frac{2}{7} \begin{matrix} (\times 3) \\ (\times 3) \end{matrix} = \frac{6}{21}$$

so
$$\frac{28}{21} - \frac{6}{21} = \frac{22}{21}$$

[Long video](#)

$$\frac{5}{8}$$

$$\frac{25}{40}$$

$$\frac{-3}{10}$$

$$\frac{-12}{40}$$

Different- Subtract

$$\frac{13}{40}$$

$$\frac{1}{4}$$

$$\frac{3}{12}$$

$$\frac{-1}{6}$$

$$\frac{-2}{12}$$

Different- Subtract

$$\frac{1}{12}$$

$$\frac{-1}{6}$$

$$\frac{-5}{30}$$

$$\frac{-7}{15}$$

$$\frac{-14}{30}$$

Same- Add

$$\frac{-19}{30}$$

$$\frac{-8}{15}$$

$$\frac{-24}{45}$$

$$\frac{4}{9}$$

$$\frac{20}{45}$$

Different- Subtract

$$\frac{-4}{45}$$



Flip it!!!!
video



No really... Flip it...we're getting
ready to divide fractions ...

Multiplying Fractions

Video Song

Multiply the
numerators

$$\frac{2}{5} \times \frac{3}{4} = \frac{6}{\quad}$$

Multiply the
denominators

$$\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$$

Reduce the fraction if
necessary

$$\frac{6}{20} = \frac{3}{10}$$

28. Dividing Fractions

Invert the fraction
that you are dividing
by

$$\frac{4}{5} \div \frac{2}{3} = \frac{4}{5} \times \frac{3}{2}$$

Multiply the
numerators and
denominators

$$\frac{4}{5} \times \frac{3}{2} = \frac{12}{10}$$

Simplify the fraction
if necessary

$$\frac{12}{10} = 1\frac{1}{5}$$

$$-2\frac{4}{7} \quad 7 \times 2 + 4 = 18 \quad \frac{-18}{7} \quad 4 \quad \frac{1}{2} \quad 2 \times 4 + 1 = 9 \quad \frac{9}{2}$$

$$\frac{-18}{7} \quad \text{Flip it} \quad \frac{-18}{7} \times \frac{2}{9} \quad \frac{-4}{7}$$

2
1

$$-2\frac{5}{6} \quad 6 \times 2 + 5 = 17 \quad \frac{-17}{6} \quad -4\frac{1}{3} \quad 3 \times 4 + 1 = 13 \quad \frac{-13}{3}$$

$$\frac{-17}{6} \quad \text{Flip it} \quad \frac{-17}{6} \times \frac{-3}{13} \quad \frac{17}{26}$$

1
2

$$-2\frac{1}{4} \quad 4 \times 2 + 1 = 9$$

$$\frac{-9}{4}$$

$$2\frac{2}{5} \quad 5 \times 2 + 2 = 12 \quad \frac{12}{5}$$

$$\frac{-9}{4} \times$$

$$\frac{12}{5}$$

$$\frac{-27}{5}$$

$$-5\frac{2}{5}$$

$$1\frac{1}{2} \quad 2 \times 1 + 1 = 3$$

$$\frac{3}{2}$$

$$-4$$

$$\frac{-4}{1}$$

$$\frac{3}{2} \times \frac{-4}{1}$$

$$\frac{-6}{1}$$

$$-6$$

This is **it**!

For full class work grade (100%) on review guide. Copy the sentence below, answer **it**, turn **it** in to me once you finish the power point! Don't forget your name!

➤ I need more help with

$$-4\frac{1}{2}$$

$$4 \times 2 + 1 = 9$$

$$\frac{-9}{2}$$

$$-3\frac{4}{15}$$

$$15 \times 3 + 4 = 49 \quad \frac{-49}{15}$$

$$\frac{\overset{3}{-9}}{2}$$

x

$$\frac{-49}{\underset{5}{15}}$$

$$\frac{147}{10}$$

$$14\frac{7}{10}$$

Properties [Video](#)

$$4 + 59 + 36 = 36 + 4 + 59$$

Commutative

$$(4 \bullet 9) \bullet 25 = 4 \bullet (9 \bullet 25)$$

Associative

$$64 \bullet 1 \text{ or } 64 + 0$$

Identity

$$7(35) = 7(30) + 7(5)$$

Distributive

$$\frac{9}{2} \quad \frac{2}{9}$$

Flip
it

Reciprocal

Translating Video

•

5 n

-6

The product of 5 and a number, decreased by 6

$$5n - 6$$

÷

k 7

The quotient of a number and 7

$$k \div 7$$

??? - 14

14 less than a number

$$m - 14$$

$$??? - 20$$

$$3n$$

20 less than three times a number

$$3n - 20$$

$$5 (????)$$

$$t + 30$$

Five times the sum of a number and
30

$$5 (t + 30)$$

Congrats!! You are finished and
ready to test!

Give **it** to your teacher!