

10-12-17

Aim: SWBAT evaluate expressions with rational numbers.

HW: Finish Worksheet (circled problems)

Test Tuesday

Do Now: Quick Quiz

Word Problems

Pg. 236-237 # 41-43, 46

41) $21\frac{3}{8} - 2\frac{5}{8}$

$$\frac{171}{8} - \frac{21}{8}$$

$$\frac{150}{8}$$

$$18\frac{3}{4}$$

$$\begin{array}{r} 18 \\ 8 \overline{)150} \\ \underline{-84} \\ 70 \\ \underline{-64} \\ 6 \end{array}$$

There are $18\frac{3}{4}$ inches of scarf left.

42) $15\frac{5}{16} + 15\frac{3}{16} + 11\frac{7}{16} + 11\frac{7}{16}$

$$52\frac{24}{16}$$

$$52 + 1\frac{8}{16}$$

$$52 + 1\frac{1}{2}$$

$$53\frac{1}{2} \quad \text{D}$$

43) $25\frac{3}{4} - 23\frac{1}{4}$

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

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

The 2-Euro coin is $2\frac{1}{2}$ mm wider.

46) $6\frac{1}{6} + 8\frac{5}{6} + 5\frac{1}{6}$

$$19\frac{7}{6}$$

$$20\frac{1}{6}$$

$$25 - 20\frac{1}{6}$$

$$\frac{25}{1} - 20\frac{1}{6}$$

$$\frac{150}{6} - \frac{121}{6}$$

$$\frac{29}{6}$$

$$4\frac{5}{6}$$

I need to volunteer $4\frac{5}{6}$ hours during the last week.

Pg. 241-242 # 37, 38, 40

37) $47\frac{1}{4} - 31\frac{1}{2}$

$$\frac{189}{4} - \frac{63}{2}$$

$$\frac{189}{4} - \frac{126}{4}$$

$$\frac{63}{4}$$

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

The difference is $15\frac{3}{4}$ inches.

38) $2\frac{1}{4} + \frac{5}{6}$

$$\frac{9}{4} + \frac{5}{6}$$

$$\frac{27}{12} + \frac{10}{12}$$

$$\frac{37}{12}$$

$$3\frac{1}{12}$$

D

40) $6\frac{7}{50} - 5\frac{19}{20}$

$$\frac{307}{50} - \frac{119}{20}$$

$$\frac{614}{100} - \frac{595}{100}$$

The world record $\frac{19}{100}$

Pg. 246 # 33, 34

(33) $\frac{1}{5} \cdot \frac{7}{1} = \frac{7}{5} = 1\frac{2}{5}$

The Mottice Crater is $1\frac{2}{5}$ km.

(34) $15 \cdot \frac{7}{8}$

$\frac{15}{1} \cdot \frac{7}{8} = \frac{105}{8} = 13\frac{1}{8}$

I should take $13\frac{1}{8}$ cups of snack mix.

Pg. 251 # 53, 55, 56

(53) $5 \div \frac{1}{4}$

$\frac{5}{1} \cdot \frac{4}{1} = 20$

I can make 20 hamburgers.

(55) $9\frac{1}{3} + 6\frac{3}{4} + 9\frac{1}{2}$

$\frac{28}{3} + \frac{27}{4} + \frac{19}{2}$

$\frac{112}{12} + \frac{81}{12} + \frac{114}{12}$

$\frac{307}{12}$

$25\frac{7}{12}$

She covered $25\frac{7}{12}$ feet.

(56) $4 \cdot 2\frac{1}{3}$

$\frac{4}{1} \cdot \frac{7}{3} = \frac{28}{3} = 9\frac{1}{3}$

They bookshelves will take up $9\frac{1}{3}$ ft of wall space.

Pg. 253 # 13-14

(13) $1000 - 625\frac{3}{8}$

$999\frac{8}{8} - 625\frac{3}{8}$

$374\frac{5}{8}$

They need $374\frac{5}{8}$ pounds to reach their goal.

(14) $\frac{3}{4} \cdot 4\frac{1}{4}$

$\frac{3}{4} \cdot \frac{17}{4} = \frac{51}{16} = 3\frac{3}{16}$

• Step 2

$4\frac{1}{4} - 3\frac{3}{16}$

$\frac{17}{4} - \frac{51}{16}$

$\frac{68}{16} - \frac{51}{16}$

$\frac{17}{16}$

she should add $1\frac{1}{16}$ qt of oil.

16

72

32

13

$$1 \div \frac{2}{3} \cdot (-8) \cdot 3 \div \left(-\frac{1}{2}\right)$$

✓

$$1 \cdot \frac{3}{2} \cdot (-8) \cdot 3 \div \left(-\frac{1}{2}\right)$$

✓

$$\frac{3}{2} \cdot (-8) \cdot 3 \div \left(-\frac{1}{2}\right)$$

$$-12 \cdot 3 \div \left(-\frac{1}{2}\right)$$

$$-36 \div \left(-\frac{1}{2}\right)$$

$$-36 \cdot \frac{-2}{1}$$

72

Name _____

Date _____

Order of Operations with Rationals

Period _____

Evaluate if $a = 6.28$ and $b = -0.35$. Write your answer as a decimal.

1. $a - \frac{5}{2}$	2. $\frac{3}{8} + a$	3. $b - \frac{3}{4}$	4. $\frac{9}{2} + b$
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Evaluate.

5. $(-3.4 + 5.4)^2 - 1.3$	6. $\frac{2}{3} + \frac{3}{5} + 3^2$ $\frac{2^3}{3 \cdot 5} + \frac{3 \cdot 3}{5 \cdot 3} + 3^2$ $\frac{10}{15} + \frac{9}{15} + 9$ $\frac{19}{15} + 9 \rightarrow 10\frac{4}{15}$	7. $2 \cdot \frac{2}{3} + (-1\frac{1}{4})$
8. $-5\frac{2}{9} + 3.7 + 5\frac{2}{9}$ 3.7	9. $-24 - (-\frac{1}{2}) - 12.5$	10. $16(\frac{-3}{8}) + 16(\frac{1}{4})$ -6 + 4 -2
11. $-5\frac{5}{7} + 8 - 3\frac{2}{7}$	12. $\frac{16}{20} - (-1.8) - \frac{4}{5}$	13. $3\frac{1}{6} + 20.3 - (-5\frac{5}{6})$

Name _____

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14. $-2.2 \cdot (-2) \div \left(-\frac{1}{4}\right) \cdot 5$	15. $4.2 \cdot \left(-\frac{1}{3}\right) \div \frac{1}{6} \cdot (-10)$	16. $\frac{2}{5} \div \left(-1 + \frac{3}{5}\right) - 4^2$
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Evaluate if $x = -5$ and $y = 6$.

17. x^2	18. $-y + x$	19. $\frac{y+4}{2x}$
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Evaluate each expression if $a = 3$, $b = -4$, and $c = -8$.

20. $\frac{bc}{2} \rightarrow \frac{(-4)(-8)}{2} \rightarrow \frac{32}{2} \rightarrow 1$
21. $\frac{c^2}{a-b}$
22. $\frac{c+a}{-2a+b}$