DAY 5

Multiply and Divide Fractions Gr.7-8

1) $\frac{2}{3} \times \frac{3}{20} = \frac{6}{60} = \frac{1}{10}$

2) $\frac{3}{4} \times \frac{16}{21} = \frac{4}{7}$

3) $\frac{1}{10} \times 6 = \frac{6}{10} = \frac{3}{5}$

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

5) $\frac{7}{10} \times 2\frac{1}{2} = \frac{7}{10} \cdot \frac{5}{2} = \frac{7}{4}$ $1\frac{3}{4}$

6) $1\frac{5}{6} \times \frac{3}{4} = \frac{11}{6} \cdot \frac{3}{4} = \frac{11}{8}$ $1\frac{3}{8}$

7) $\frac{1}{4} \div \frac{3}{4} = \frac{1}{4} \cdot \frac{4}{3} = \frac{1}{3}$

8) $\frac{2}{3} \div \frac{4}{13} = \frac{2}{3} \cdot \frac{13}{4} = \frac{13}{6}$ $2\frac{1}{6}$

9) $\frac{8}{15} \div 6 = \frac{8}{15} \cdot \frac{1}{6} = \frac{4}{45}$

10) $5 \div \frac{1}{3} = \frac{5}{1} \cdot \frac{3}{1} = 15$

11) $4\frac{2}{15} \div \frac{2}{3} = \frac{62}{15} \cdot \frac{3}{2} = \frac{31}{5}$ $6\frac{1}{5}$

12) $\frac{5}{6} \div 4\frac{9}{14} = \frac{5}{6} \div \frac{65}{14}$

$= \frac{5}{6} \cdot \frac{14}{65} = \frac{7}{39}$

13) $2\frac{1}{2} \div 4\frac{1}{8} = \frac{5}{2} \div \frac{33}{8}$

$= \frac{5}{2} \cdot \frac{8}{33}$

$= \frac{20}{33}$

14) $3\frac{9}{10} \div 2\frac{3}{4} = \frac{39}{10} \div \frac{11}{4}$

$= \frac{39}{10} \cdot \frac{4}{11}$

$= \frac{78}{55}$ $1\frac{23}{55}$

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Collecting Like Terms

Gr. 7-8

Simplify each expression.

1) $-6k+7k$ $= 1k$

2) $12r-8-12$ $= 12r-20$

3) $n-10+9n-3$ $= 10n-13$

4) $-4x-10x$ $= -14x$

5) $-r-10r$ $= -11r$

6) $-2x+11+6x$ $= 4x+11$

7) $11r-12r$ $= -1r$

8) $-v+12v$ $= 11v$

9) $-8x-11x$ $= -19x$

10) $4p+2p$ $= 6p$

11) $5n+11n$ $= 16n$

12) $n+4-9-5n$ $= -4n-5$

Simplifying Expressions

13) $7(6x^2+9xy+10y^2)$

$=42x^2+63xy+70y^2$

14) $2u(6u^2-9uv+v^2)$

$=12u^3-18u^2v+2uv^2$

15) $9(x^2+xy-8y^2)$

$=9x^2+9xy-72y^2$

16) $9v^2(u^2+uv-5v^2)$

$=9v^2u^2+9uv^3-45v^3$

Evaluate each expression

a) $m+p\div 5$; use $m=1$, and $p=5$

$=1+5\div 5$

$=1+1$

$=2$

b) $2\div((9-v+a)\div 4)$
$(a=7, v=8)$

$=2\div((9-8+7)\div 4)$

$=2\div(8\div 4)$

$=2\div 2=1$

c) $p^2m\div 4$; use $m=4$, and $p=7$

$=(7)^2(4)\div 4$

$=(49)(4)\div 4$

$=49$

d) $c^4+10-3+v$
$(c=2, v=4)$

$=2^4+10-3+4$

$=16+10-3+4$

$=26-3+4$

$=23+4$

$=27$