

Warm Up Grade 8

Jan. 22, 2020

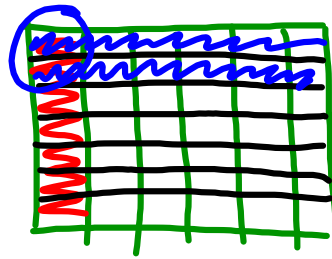


a) Multiply and reduce

$$\begin{aligned}
 & 3 \frac{3}{7} \times 3 \frac{1}{8} \\
 & \frac{24 \div 8}{7} \times \frac{25}{8 \div 8} \\
 & = \frac{3}{7} \times \frac{25}{1} \\
 & = \frac{75}{7} \\
 & = 10 \frac{5}{7}
 \end{aligned}$$

b) Use a rectangular box (or grid paper)

$$\frac{1}{6} \times \frac{2}{7} = \frac{2}{42} = \frac{1}{21}$$



$$3 \frac{3}{7} = \frac{24}{7}$$

$$\frac{3 \times 7}{1 \times 7} + \frac{3}{7}$$

Common Denominators

$$\frac{21}{7} + \frac{3}{7}$$

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

Warm Up Grade 8

January 23, 2017



a) Multiply and reduce

$$3 \frac{3}{7} \times 3 \frac{1}{8}$$

$$= \frac{\cancel{2} \times 3}{7} \times \frac{25}{\cancel{8} \times 1}$$

$$= \frac{3 \times 25}{7 \times 1}$$

$$= \frac{75}{7}$$

$$= 10 \frac{5}{7}$$

b) Use a rectangular box (or grid paper)

or

$$\frac{1}{6} \times \frac{2}{7} = \frac{2}{42} = \frac{1}{21}$$

$$\begin{aligned} 600 \div 2 \\ 56 \div 2 \\ 300 \div 2 \\ 28 \div 2 \\ 150 \div 2 \\ 14 \div 2 \\ 75 \\ 7 \end{aligned}$$

Page 120 # 15(a,b,c,d), #16(a)

13. i) Product
 Page 125 #4(a,b,c), #5(b,h,e), #6(b,h,e), #7(Just multiply no estimation), #9

i) $2 \Rightarrow \frac{12}{6} = \frac{3}{2} \times \frac{4}{3}$

ii) $3 \Rightarrow \frac{30}{10} = \frac{15}{2} \times \frac{2}{5}$

iii) $4 \Rightarrow \frac{48}{12} = \frac{8}{3} \times \frac{6}{4}$

iv) $5 \Rightarrow \frac{100}{20} = \frac{25}{4} \times \frac{4}{5}$

vi) $\frac{6}{5} \times \frac{5}{6}$

$2 \Rightarrow \frac{12}{5} \times \frac{5}{6}$

$\Rightarrow \frac{18}{5} \times \frac{5}{6}$

$\Rightarrow \frac{24}{5} \times \frac{5}{6}$

$\Rightarrow \frac{30}{5} \times \frac{5}{6}$

c) Product 10
 mult $6 \times 10 = 60$
 $\frac{60}{5} \times \frac{5}{6}$

14. Sum $\frac{7}{12}$ Product $\frac{1}{12}$

$\frac{3}{12} + \frac{4}{12} = \frac{7}{12}$

$\frac{3}{12} \times \frac{4}{12} = \frac{12}{144}$
 $= \frac{1}{12}$

Page 120 # 15(a,b,c,d), #16(a)
 Page 125 #4(a,b,c), #5(b,h,e), #6(b,h,e), #7(Just multiply no estimation), #9

15 a) $\frac{23}{40} \times \frac{15}{25} = \frac{9}{40}$

b) $\frac{26}{39} \times \frac{9}{18} = \frac{6}{13}$

c) $\frac{5}{8} \times \frac{8}{16} = \frac{3}{8}$

d) $\frac{76}{91} \times \frac{7}{19} = \frac{4}{13}$

16 a) $\frac{24}{25} \times \frac{85}{96} = \frac{17}{20}$

b) without simplify

$$\frac{24}{25} \times \frac{85}{96} = \frac{2040}{2400} = \frac{102}{120} = \frac{17}{20}$$

24x85 = 2040
 25x96 = 2400

17. Product $\frac{3}{4}$

$\frac{1}{2} \times \frac{3}{2} = \frac{30}{40} = \frac{5}{8} \times \frac{6}{5}$

Page 125 #4(a,b,c), #5(b,h,e), #6(b,h,e), #7(Just multiply no estimation), #9

4 a) $3\frac{1}{2}$ or $\frac{7}{2}$ b) $2\frac{1}{3}$ or $\frac{7}{3}$

c) $1\frac{6}{7}$ or $\frac{13}{7}$

5 a) $2\frac{3}{10} = \frac{23}{10}$ b) $4\frac{1}{8} = \frac{33}{8}$

c) $3\frac{5}{6} = \frac{23}{6}$ d) $1\frac{2}{3} = \frac{5}{3}$

e) $3\frac{2}{5} = \frac{17}{5}$ f) $5\frac{1}{2} = \frac{11}{2}$

g) $2\frac{4}{7} = \frac{18}{7}$ h) $3\frac{5}{9} = \frac{32}{9}$

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

6 a) $\frac{11}{3} = 3\frac{2}{3}$ b) $\frac{15}{4} = 3\frac{3}{4}$

c) $\frac{21}{5} = 4\frac{1}{5}$ d) $\frac{15}{8} = 1\frac{7}{8}$

e) $\frac{19}{6} = 3\frac{1}{6}$ f) $\frac{31}{7} = 4\frac{3}{7}$

g) $\frac{11}{2} = 5\frac{1}{2}$ h) $\frac{43}{10} = 4\frac{3}{10}$

i) $\frac{37}{8} = 4\frac{5}{8}$

7 a) $2\frac{1}{8} \times 3\frac{3}{4}$
 $\approx 2 \times 4 = 8$

$\frac{17}{8} \times \frac{15}{4} = \frac{255}{32} = 7\frac{31}{32}$
 Close to 8

b) $3\frac{5}{9} \times 1\frac{5}{6}$
 $\approx 3.5 \times 2 = 7$

$\frac{32}{9} \times \frac{11}{6} = \frac{352}{54} = \frac{176}{27} = 6\frac{14}{27}$ Close to 7
 $\frac{16}{9} \times \frac{11}{3} = \frac{176}{27}$

c) $7\frac{3}{8} \times 2\frac{4}{5}$
 $\approx 7 \times 3 = 21$

$\frac{59}{8} \times \frac{14}{5} = \frac{826}{40} = \frac{413}{20} = 20\frac{13}{20}$
 $\frac{59 \times 14}{4 \times 8 \times 5} = \frac{413}{20} = 20\frac{13}{20}$
 Close to 21

d) $4\frac{7}{9} \times 3\frac{5}{12}$
 $\approx 5 \times 3 = 15$

$\frac{43}{9} \times \frac{41}{12} = \frac{1763}{108} = 16\frac{35}{108}$
 Close to 16

8 a) $3\frac{3}{5} \times 2\frac{2}{9}$
 $\approx 3.5 \times 2 = 7$ or $\approx 4 \times 2 = 8$

b) $\frac{18}{5} \times \frac{20}{9} = \frac{360}{45} = \frac{72}{9} = 8$

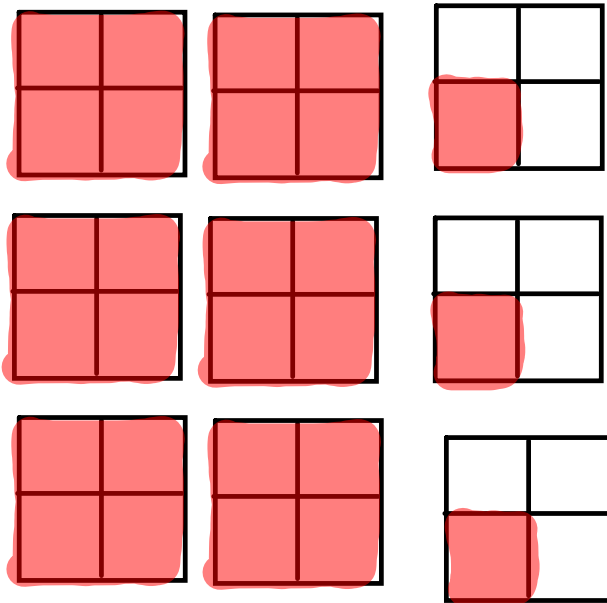
$\frac{18}{5} \times \frac{20}{9} = 8$

9 a) $3 \times 2\frac{1}{4}$
 $\frac{3}{1} \times \frac{9}{4} = \frac{27}{4}$
 $6\frac{3}{4}$

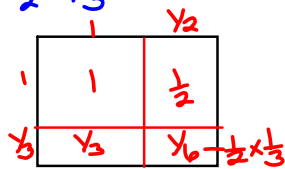
b) $4 \times 2\frac{1}{8}$
 $\frac{4}{1} \times \frac{17}{8} = \frac{68}{8} = \frac{17}{2} = 8\frac{1}{2}$

c) $1\frac{2}{3} \times 2$
 $\frac{5}{3} \times \frac{2}{1} = \frac{10}{3} = 3\frac{1}{3}$

d) $3\frac{1}{5} \times 3$
 $\frac{16}{5} \times \frac{3}{1} = \frac{48}{5} = 9\frac{3}{5}$



10 a) $1\frac{1}{2} \times 1\frac{1}{3}$



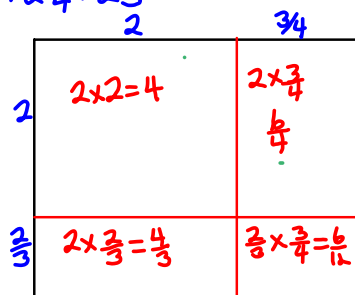
$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{6}$$

$$1 + \frac{2}{6} + \frac{2}{6} + \frac{1}{6}$$

$$1 + \frac{5}{6} = 2$$

$$\frac{3}{2} \times \frac{4}{3} = \frac{12}{6} = 2$$

b) $2\frac{2}{3} \times 2\frac{3}{4}$



$$4 + \frac{6}{4} + \frac{4}{3} + \frac{1}{2}$$

$$4 + \frac{18}{12} + \frac{16}{12} + \frac{6}{12}$$

$$4 + \frac{40}{12}$$

$$4 + 3\frac{4}{12}$$

$$7\frac{1}{3} \text{ or } 7\frac{1}{3}$$

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

$$\frac{8}{3} \times \frac{11}{4} = \frac{88}{12}$$

$$= 2\frac{2}{3} \text{ or } 7\frac{1}{3}$$

23×48

$$\begin{array}{r} 23 \\ \times 48 \\ \hline 184 \\ 960 \\ \hline 1104 \end{array}$$

	20	3
40	800	120
8	160	24
	1004	

$$\begin{array}{r} 48 \\ \times 23 \\ \hline 144 \\ 960 \\ \hline 1104 \end{array}$$

c) $1\frac{1}{5} \times 3\frac{1}{3}$

Do out today

		$\frac{1}{3}$
1	$1 \times 3 = 3$	$1 \times \frac{1}{3} = \frac{1}{3}$
$\frac{1}{5}$	$\frac{1}{5} \times 3 = \frac{3}{5}$	$\frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$

$$3 + \frac{1}{3} + \frac{3}{5} + \frac{1}{15}$$

$$3 + \frac{5}{5} + \frac{9}{15} + \frac{1}{15}$$

$$3 + \frac{15}{15}$$

$$3 + 1$$

$$4$$

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

$$\frac{6}{3} \times \frac{10}{3} = \frac{60}{9}$$

$$= 4$$

Class/Homework

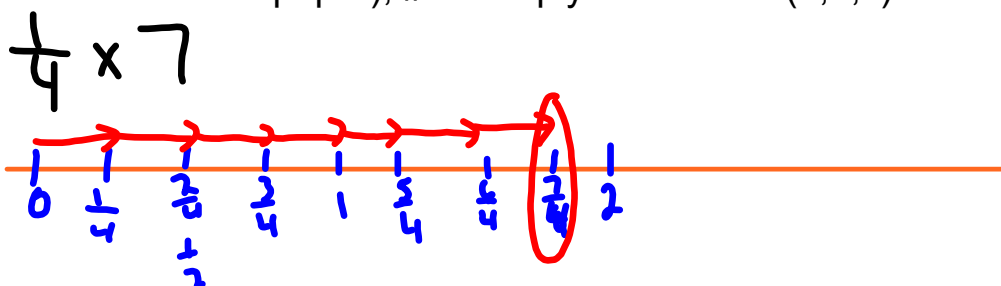
Mid-unit review

Page 128 # 2 to # 10

only model #2a
and #4c

Warm Up Quiz Tomorrow

#1 (Model with a rectangular box..grid paper), #2 multiply and reduce (a,b,c)



Sash has 16 tomatoes

gives Samira $\frac{1}{8} \times \frac{16}{1} = \frac{16}{8} = 2$

Amandeep $\frac{1}{2} \times \frac{16}{1} = \frac{16}{2} = 8$

Amina $\frac{1}{4} \times \frac{16}{1} = \frac{16}{4} = 4$

a) $2 + 8 + 4 = 14$ gave away

b) $16 - 14 = 2$ left

c) $\frac{2}{16} = \frac{1}{8}$ left

a) $\frac{1}{8} + \frac{1}{2} + \frac{1}{4}$
 $\frac{1}{8} + \frac{4}{8} + \frac{2}{8} = \frac{7}{8}$

$2 \times \frac{16}{1} \times \frac{7}{8} = \frac{14}{1}$