# A Story of Units®

# Eureka Math<sup>™</sup> Grade 5, Module 4

Student File\_B

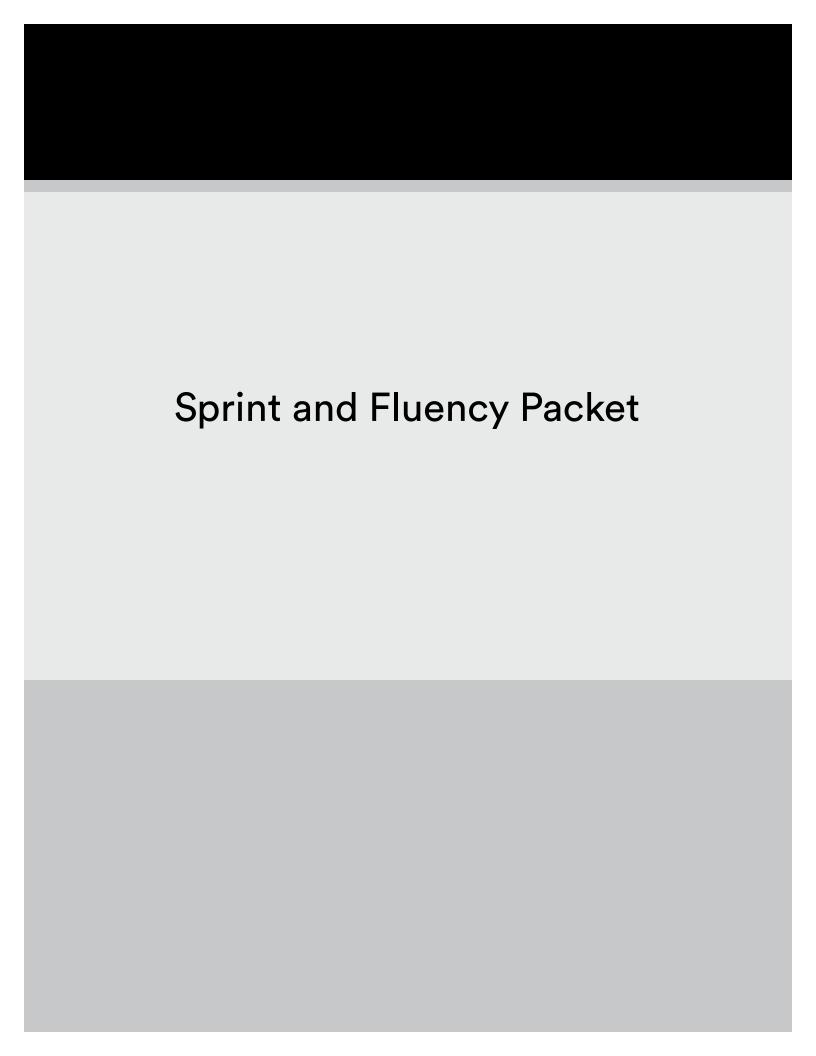
Contains Sprint and Fluency, Exit Ticket, and Assessment Materials

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#### **Divide Whole Numbers**

1.	1 ÷ 2 =	
2.	1 ÷ 3 =	
3.	1 ÷ 8 =	
4.	2 ÷ 2 =	
5.	2 ÷ 3 =	
6.	3 ÷ 3 =	
7.	3 ÷ 4 =	
8.	3 ÷ 10 =	
9.	3 ÷ 5 =	
10.	5 ÷ 5 =	
11.	6 ÷ 5 =	
12.	7 ÷ 5 =	
13.	9 ÷ 5 =	
14.	2 ÷ 3 =	
15.	4 ÷ 4 =	
16.	5 ÷ 4 =	
17.	7 ÷ 4 =	
18.	4 ÷ 2 =	
19.	5 ÷ 2 =	
20.	10 ÷ 5 =	
21.	11 ÷ 5 =	
22.	13 ÷ 5 =	

23.	6 ÷ 2 =	
24.	7 ÷ 2 =	
25.	8 ÷ 8 =	
26.	9 ÷ 8 =	
27.	15 ÷ 8 =	
28.	8 ÷ 4 =	
29.	11 ÷ 4 =	
30.	15 ÷ 2 =	
31.	24 ÷ 5 =	
32.	17 ÷ 4 =	
33.	20 ÷ 3 =	
34.	13 ÷ 6 =	
35.	30 ÷ 7 =	
36.	27 ÷ 8 =	
37.	49 ÷ 9 =	
38.	29 ÷ 6 =	
39.	47 ÷ 7 =	
40.	53 ÷ 8 =	
41.	67 ÷ 9 =	
42.	59 ÷ 6 =	
43.	63 ÷ 8 =	
44.	71 ÷ 9 =	

#### Divi

2					NU	umber Co	rrect:
	Improvement:						ment:
vic	de Whole Numbers						
	ı	T				1	
	1 ÷ 3 =			23.	15 ÷ 5 =		

1.	1 ÷ 3 =	
2.	1 ÷ 4 =	
3.	1 ÷ 10 =	
4.	5 ÷ 5 =	
5.	5 ÷ 6 =	
6.	3 ÷ 3 =	
7.	3 ÷ 7 =	
8.	3 ÷ 10 =	
9.	3 ÷ 4 =	
10.	4 ÷ 4 =	
11.	5 ÷ 4 =	
12.	2 ÷ 2 =	
13.	3 ÷ 2 =	
14.	4 ÷ 5 =	
15.	10 ÷ 10 =	
16.	11 ÷ 10 =	
17.	13 ÷ 10 =	
18.	10 ÷ 5 =	
19.	11 ÷ 5 =	
20.	13 ÷ 5 =	
21.	4 ÷ 2 =	
22.	5 ÷ 2 =	

23.	15 ÷ 5 =	
24.	16 ÷ 5 =	
25.	6 ÷ 6 =	
26.	7 ÷ 6 =	
27.	11 ÷ 6 =	
28.	6 ÷ 3 =	
29.	8 ÷ 3 =	
30.	13 ÷ 2 =	
31.	23 ÷ 5 =	
32.	15 ÷ 4 =	
33.	19 ÷ 4 =	
34.	19 ÷ 6 =	
35.	31 ÷ 7 =	
36.	37 ÷ 8 =	
37.	50 ÷ 9 =	
38.	17 ÷ 6 =	
39.	48 ÷ 7 =	
40.	51 ÷ 8 =	
41.	68 ÷ 9 =	
42.	53 ÷ 6 =	
43.	61 ÷ 8 =	
44.	70 ÷ 9 =	



Lesson 6:

Relate fractions as division to fraction of a set.

## Multiply a Fraction and a Whole Number

1.	<sup>1</sup> / <sub>5</sub> × 2 =
2.	<sup>1</sup> / <sub>5</sub> × 3 =
3.	<sup>1</sup> / <sub>5</sub> × 4 =
4.	$4 \times {}^{1}/_{5} =$
5.	<sup>1</sup> / <sub>8</sub> × 3 =
6.	<sup>1</sup> / <sub>8</sub> × 5 =
7.	<sup>1</sup> / <sub>8</sub> × 7 =
8.	7 × <sup>1</sup> / <sub>8</sub> =
9.	3 × <sup>1</sup> / <sub>10</sub> =
10.	7 × <sup>1</sup> / <sub>10</sub> =
11.	<sup>1</sup> / <sub>10</sub> × 7 =
12.	4 ÷ 2 =
13.	$4 \times {}^{1}/_{2} =$
14.	6 ÷ 3 =
15.	<sup>1</sup> / <sub>3</sub> × 6 =
16.	10 ÷ 5 =
17.	10 × <sup>1</sup> / <sub>5</sub> =
18.	<sup>1</sup> / <sub>3</sub> × 9 =
19.	<sup>2</sup> / <sub>3</sub> × 9 =
20.	<sup>1</sup> / <sub>4</sub> × 8 =
21.	$^{3}/_{4} \times 8 =$
22.	<sup>1</sup> / <sub>6</sub> × 12 =

23.	<sup>5</sup> / <sub>6</sub> × 12 =	
24.	<sup>1</sup> / <sub>3</sub> × 15 =	
25.	<sup>2</sup> / <sub>3</sub> × 15 =	
26.	15 × <sup>2</sup> / <sub>3</sub> =	
27.	<sup>1</sup> / <sub>5</sub> × 15 =	
28.	<sup>2</sup> / <sub>5</sub> × 15 =	
29.	<sup>4</sup> / <sub>5</sub> × 15 =	
30.	$^{3}/_{5} \times 15 =$	
31.	15 × <sup>3</sup> / <sub>5</sub> =	
32.	18 × <sup>1</sup> / <sub>6</sub> =	
33.	$18 \times {}^{5}/_{6} =$	
34.	<sup>5</sup> / <sub>6</sub> × 18 =	
35.	24 × <sup>1</sup> / <sub>4</sub> =	
36.	$^{3}/_{4} \times 24 =$	
37.	32 × <sup>1</sup> / <sub>8</sub> =	
38.	$32 \times \frac{3}{8} =$	
39.	<sup>5</sup> / <sub>8</sub> × 32 =	
40.	32 × <sup>7</sup> / <sub>8</sub> =	
41.	<sup>5</sup> / <sub>9</sub> × 54 =	
42.	63 × <sup>7</sup> / <sub>9</sub> =	
43.	$56 \times {}^{3}/_{7} =$	
44.	<sup>6</sup> / <sub>7</sub> × 49 =	

Multiply a Fraction and a Whole Number

Number Correct: \_\_\_\_\_ Improvement: \_\_\_\_\_

1.	<sup>1</sup> / <sub>7</sub> × 2 =
2.	<sup>1</sup> / <sub>7</sub> × 3 =
3.	<sup>1</sup> / <sub>7</sub> × 4 =
4.	4 × <sup>1</sup> / <sub>7</sub> =
5.	<sup>1</sup> / <sub>10</sub> × 3 =
6.	<sup>1</sup> / <sub>10</sub> × 7 =
7.	<sup>1</sup> / <sub>10</sub> × 9 =
8.	9 × <sup>1</sup> / <sub>10</sub> =
9.	3 × <sup>1</sup> / <sub>8</sub> =
10.	5 × <sup>1</sup> / <sub>8</sub> =
11.	<sup>1</sup> / <sub>8</sub> × 5 =
12.	10 ÷ 5 =
13.	10 × <sup>1</sup> / <sub>5</sub> =
14.	9 ÷ 3 =
15.	<sup>1</sup> / <sub>3</sub> × 9 =
16.	10 ÷ 2 =
17.	10 × <sup>1</sup> / <sub>2</sub> =
18.	<sup>1</sup> / <sub>3</sub> × 6 =
19.	$^{2}/_{3} \times 6 =$
20.	<sup>1</sup> / <sub>6</sub> × 12 =
21.	<sup>5</sup> / <sub>6</sub> × 12 =
22.	<sup>1</sup> / <sub>4</sub> × 8 =

23.	<sup>3</sup> / <sub>4</sub> × 8 =
24.	<sup>1</sup> / <sub>5</sub> × 15 =
25.	<sup>2</sup> / <sub>5</sub> × 15 =
26.	<sup>4</sup> / <sub>5</sub> × 15 =
27.	<sup>3</sup> / <sub>5</sub> × 15 =
28.	15 × <sup>3</sup> / <sub>5</sub> =
29.	<sup>1</sup> / <sub>3</sub> × 15 =
30.	<sup>2</sup> / <sub>3</sub> × 15 =
31.	15 × <sup>2</sup> / <sub>3</sub> =
32.	24 × <sup>1</sup> / <sub>6</sub> =
33.	24 × <sup>5</sup> / <sub>6</sub> =
34.	<sup>5</sup> / <sub>6</sub> × 24 =
35.	20 × <sup>1</sup> / <sub>4</sub> =
36.	<sup>3</sup> / <sub>4</sub> × 20 =
37.	24 × <sup>1</sup> / <sub>8</sub> =
38.	24 × <sup>3</sup> / <sub>8</sub> =
39.	<sup>5</sup> / <sub>8</sub> × 24 =
40.	24 × <sup>7</sup> / <sub>8</sub> =
41.	<sup>5</sup> / <sub>9</sub> × 63 =
42.	54 × <sup>7</sup> / <sub>9</sub> =
43.	49 × <sup>3</sup> / <sub>7</sub> =
44.	<sup>6</sup> / <sub>7</sub> × 56 =

## **Multiply Fractions**

1.	<sup>1</sup> / <sub>2</sub> × <sup>1</sup> / <sub>2</sub> =	
2.	$^{1}/_{2} \times ^{1}/_{3} =$	
3.	$^{1}/_{2} \times ^{1}/_{4} =$	
4.	$^{1}/_{2} \times ^{1}/_{7} =$	
5.	$^{1}/_{7} \times ^{1}/_{2} =$	
6.	$^{1}/_{3} \times ^{1}/_{2} =$	
7.	$^{1}/_{3} \times ^{1}/_{3} =$	
8.	$^{1}/_{3} \times ^{1}/_{6} =$	
9.	$^{1}/_{3} \times ^{1}/_{5} =$	
10.	$^{1}/_{5} \times ^{1}/_{3} =$	
11.	$^{1}/_{5} \times ^{2}/_{3} =$	
12.	$^{2}/_{5} \times ^{2}/_{3} =$	
13.	$^{1}/_{4} \times ^{1}/_{3} =$	
14.	$^{1}/_{4} \times ^{2}/_{3} =$	
15.	$\frac{3}{4} \times \frac{2}{3} =$	
16.	$^{1}/_{6} \times ^{1}/_{3} =$	
17.	$\frac{5}{6} \times \frac{1}{3} =$	
18.	$\frac{5}{6} \times \frac{2}{3} =$	
19.	$\frac{5}{4} \times \frac{2}{3} =$	
20.	$^{1}/_{5} \times ^{1}/_{5} =$	
21.	$\frac{2}{5} \times \frac{2}{5} =$	
22.	$\frac{2}{5} \times \frac{3}{5} =$	

23.	$\frac{2}{5} \times \frac{5}{3} =$	
24.	$\frac{3}{5} \times \frac{5}{2} =$	
25.	$\frac{1}{3} \times \frac{1}{3} =$	
26.	$\frac{1}{3} \times \frac{2}{3} =$	
27.	$^{2}/_{3} \times ^{2}/_{3} =$	
28.	$\frac{2}{3} \times \frac{3}{2} =$	
29.	$\frac{2}{3} \times \frac{4}{3} =$	
30.	$\frac{2}{3} \times \frac{5}{3} =$	
31.	$\frac{3}{2} \times \frac{3}{5} =$	
32.	$\frac{3}{4} \times \frac{1}{5} =$	
33.	$\frac{3}{4} \times \frac{4}{5} =$	
34.	$\frac{3}{4} \times \frac{5}{5} =$	
35.	$\frac{3}{4} \times \frac{6}{5} =$	
36.	$\frac{1}{4} \times \frac{6}{5} =$	
37.	1/ <sub>7</sub> × 1/ <sub>7</sub> =	
38.	$\frac{1}{8} \times \frac{3}{5} =$	
39.	$\frac{5}{6} \times \frac{1}{4} =$	
40.	$\frac{3}{4} \times \frac{3}{4} =$	
41.	$\frac{2}{3} \times \frac{6}{6} =$	
42.	$\frac{3}{4} \times \frac{6}{2} =$	
43.	$\frac{7}{8} \times \frac{7}{9} =$	
44.	$\frac{7}{12} \times \frac{9}{8} =$	



# **Multiply Fractions**

1.	$\frac{1}{2} \times \frac{1}{3} =$	
2.	1/ <sub>2</sub> × 1/ <sub>4</sub> =	
3.	<sup>1</sup> / <sub>2</sub> × <sup>1</sup> / <sub>5</sub> =	
4.	<sup>1</sup> / <sub>2</sub> × <sup>1</sup> / <sub>9</sub> =	
5.	$^{1}/_{9} \times ^{1}/_{2} =$	
6.	$\frac{1}{5} \times \frac{1}{2} =$	
7.	$\frac{1}{5} \times \frac{1}{3} =$	
8.	<sup>1</sup> / <sub>5</sub> × <sup>1</sup> / <sub>7</sub> =	
9.	$\frac{1}{5} \times \frac{1}{3} =$	
10.	$\frac{1}{3} \times \frac{1}{5} =$	
11.	$\frac{1}{3} \times \frac{2}{5} =$	
12.	$\frac{2}{3} \times \frac{2}{5} =$	
13.	1/ <sub>3</sub> × 1/ <sub>4</sub> =	
14.	$\frac{1}{3} \times \frac{3}{4} =$	
15.	$\frac{2}{3} \times \frac{3}{4} =$	
16.	$\frac{1}{3} \times \frac{1}{6} =$	
17.	$^{2}/_{3} \times ^{1}/_{6} =$	
18.	$\frac{2}{3} \times \frac{5}{6} =$	
19.	$\frac{3}{2} \times \frac{3}{4} =$	
20.	<sup>1</sup> / <sub>5</sub> × <sup>1</sup> / <sub>5</sub> =	
21.	$\frac{3}{5} \times \frac{3}{5} =$	
22.	$\frac{3}{5} \times \frac{4}{5} =$	

Number Correct: \_\_\_\_\_ Improvement: \_\_\_\_\_

23.	$\frac{3}{5} \times \frac{5}{4} =$	
24.	$\frac{4}{5} \times \frac{5}{3} =$	
25.	1/ <sub>4</sub> × 1/ <sub>4</sub> =	
26.	$\frac{1}{4} \times \frac{3}{4} =$	
27.	$^{3}/_{4} \times ^{3}/_{4} =$	
28.	$^{3}/_{4} \times ^{4}/_{3} =$	
29.	$\frac{3}{4} \times \frac{5}{4} =$	
30.	$^{3}/_{4} \times ^{6}/_{4} =$	
31.	$\frac{4}{3} \times \frac{4}{6} =$	
32.	$\frac{2}{3} \times \frac{1}{5} =$	
33.	$^{2}/_{3} \times ^{4}/_{5} =$	
34.	$\frac{2}{3} \times \frac{5}{5} =$	
35.	$\frac{2}{3} \times \frac{6}{5} =$	
36.	$\frac{1}{3} \times \frac{6}{5} =$	
37.	<sup>1</sup> / <sub>9</sub> × <sup>1</sup> / <sub>9</sub> =	
38.	$\frac{1}{5} \times \frac{3}{8} =$	
39.	$^{3}/_{4} \times ^{1}/_{6} =$	
40.	$\frac{2}{3} \times \frac{2}{3} =$	
41.	<sup>3</sup> / <sub>4</sub> × <sup>8</sup> / <sub>8</sub> =	
42.	$^{2}/_{3} \times ^{6}/_{3} =$	
43.	<sup>6</sup> / <sub>7</sub> × <sup>8</sup> / <sub>9</sub> =	
44.	<sup>7</sup> / <sub>12</sub> × <sup>8</sup> / <sub>7</sub> =	

#### **Multiply Decimals**

1.	3 × 2 =	
2.	3 × 0.2 =	
3.	3 × 0.02 =	
4.	3 × 3 =	
5.	3 × 0.3 =	
6.	3 × 0.03 =	
7.	2 × 4 =	
8.	2 × 0.4 =	
9.	2 × 0.04 =	
10.	5 × 3 =	
11.	5 × 0.3 =	
12.	5 × 0.03 =	
13.	7 × 2 =	
14.	7 × 0.2 =	
15.	7 × 0.02 =	
16.	4 × 3 =	
17.	4 × 0.3 =	
18.	0.4 × 3 =	
19.	0.4 × 0.3 =	
20.	0.4 × 0.03 =	
21.	0.3 × 0.04 =	
22.	6 × 2 =	

23.	0.6 × 2 =	
24.	0.6 × 0.2 =	
25.	0.6 × 0.02 =	
26.	0.2 × 0.06 =	
27.	5 × 7 =	
28.	0.5 × 7 =	
29.	0.5 × 0.7 =	
30.	0.5 × 0.07 =	
31.	0.7 × 0.05 =	
32.	2 × 8 =	
33.	9 × 0.2 =	
34.	3 × 7 =	
35.	8 × 0.03 =	
36.	4 × 6 =	
37.	0.6 × 7 =	
38.	0.7 × 0.7 =	
39.	0.8 × 0.06 =	
40.	0.09 × 0.6 =	
41.	6 × 0.8 =	
42.	0.7 × 0.9 =	
43.	0.08 × 0.8 =	
44.	0.9 × 0.08 =	



#### **Multiply Decimals**

Number Correct:	
Improvement:	

1.	4 × 2 =
2.	4 × 0.2 =
3.	4 × 0.02 =
4.	2 × 3 =
5.	2 × 0.3 =
6.	2 × 0.03 =
7.	3 × 3 =
8.	3 × 0.3 =
9.	3 × 0.03 =
10.	4 × 3 =
11.	4 × 0.3 =
12.	4 × 0.03 =
13.	9 × 2 =
14.	9 × 0.2 =
15.	9 × 0.02 =
16.	5 × 3 =
17.	5 × 0.3 =
18.	0.5 × 3 =
19.	0.5 × 0.3 =
20.	0.5 × 0.03 =
21.	0.3 × 0.05 =
22.	8 × 2 =

23.	0.8 × 2 =	
24.	0.8 × 0.2 =	
25.	0.8 × 0.02 =	
26.	0.2 × 0.08 =	
27.	5 × 9 =	
28.	0.5 × 9 =	
29.	0.5 × 0.9 =	
30.	0.5 × 0.09 =	
31.	0.9 × 0.05 =	
32.	2 × 6 =	
33.	7 × 0.2 =	
34.	3 × 8 =	
35.	9 × 0.03 =	
36.	4 × 8 =	
37.	0.7 × 6 =	
38.	0.6 × 0.6 =	
39.	0.6 × 0.08 =	
40.	0.06 × 0.9 =	
41.	8 × 0.6 =	
42.	0.9 × 0.7 =	
43.	0.07 × 0.7 =	
44.	0.8 × 0.09 =	



Explain the size of the product, and relate fraction and decimal Lesson 21: equivalence to multiplying a fraction by 1.

#### Divide Whole Numbers by Fractions and Fractions by Whole Numbers

1.	$\frac{1}{2} \div 2 =$	
2.	$\frac{1}{2} \div 3 =$	
3.	$\frac{1}{2} \div 4 =$	
4.	$\frac{1}{2} \div 7 =$	
5.	$7 \div \frac{1}{2} =$	
6.	$6 \div \frac{1}{2} =$	
7.	$5 \div \frac{1}{2} =$	
8.	$3 \div \frac{1}{2} =$	
9.	$2 \div \frac{1}{5} =$	
10.	$3 \div \frac{1}{5} =$	
11.	$4 \div \frac{1}{5} =$	
12.	$7 \div \frac{1}{5} =$	
13.	$\frac{1}{5} \div 7 =$	
14.	$\frac{1}{3} \div 2 =$	
15.	$2 \div \frac{1}{3} =$	
16.	$\frac{1}{4} \div 2 =$	
17.	$2 \div \frac{1}{4} =$	
18.	$\frac{1}{5} \div 2 =$	
19.	$2 \div \frac{1}{5} =$	
20.	$3 \div \frac{1}{4} =$	
21.	$\frac{1}{4} \div 3 =$	
22.	$\frac{1}{4} \div 4 =$	

iole N	umbers	
23.	$4 \div \frac{1}{4} =$	
24.	$\frac{1}{3} \div 3 =$	
25.	$\frac{2}{3} \div 3 =$	
26.	$\frac{1}{4} \div 2 =$	
27.	$\frac{3}{4} \div 2 =$	
28.	$\frac{1}{5} \div 2 =$	
29.	$\frac{3}{5} \div 2 =$	
30.	$\frac{1}{6} \div 2 =$	
31.	$\frac{5}{6} \div 2 =$	
32.	$\frac{5}{6} \div 3 =$	
33.	$\frac{1}{6} \div 3 =$	
34.	$3 \div \frac{1}{6} =$	
35.	$6 \div \frac{1}{6} =$	
36.	$7 \div \frac{1}{7} =$	
37.	$8 \div \frac{1}{8} =$	
38.	$9 \div \frac{1}{9} =$	
39.	$\frac{1}{8} \div 7 =$	
40.	$9 \div \frac{1}{8} =$	
41.	$\frac{1}{8} \div 7 =$	
42.	$7 \div \frac{1}{6} =$	
43.	$9 \div \frac{1}{7} =$	
44.	$\frac{1}{9} \div 9 =$	

Improvement: \_\_\_\_\_

#### Divide Whole Numbers by Fractions and Fractions by Whole Numbers

	1	
1.	$\frac{1}{2} \div 2 =$	
2.	$\frac{1}{5} \div 3 =$	
3.	$\frac{1}{5} \div 4 =$	
4.	$\frac{1}{5} \div 7 =$	
5.	$7 \div \frac{1}{5} =$	
6.	$6 \div \frac{1}{5} =$	
7.	$5 \div \frac{1}{5} =$	
8.	$3 \div \frac{1}{5} =$	
9.	$2 \div \frac{1}{2} =$	
10.	$3 \div \frac{1}{2} =$	
11.	$4 \div \frac{1}{2} =$	
12.	$7 \div \frac{1}{2} =$	
13.	$\frac{1}{2} \div 7 =$	
14.	$\frac{1}{4} \div 2 =$	
15.	$2 \div \frac{1}{4} =$	
16.	$\frac{1}{3} \div 2 =$	
17.	$2 \div \frac{1}{3} =$	
18.	$\frac{1}{2} \div 2 =$	
19.	$2 \div \frac{1}{2} =$	
20.	$4 \div \frac{1}{3} =$	
21.	$\frac{1}{3} \div 4 =$	
22.	$\frac{1}{3} \div 3 =$	

.0.0	umbers	
23.	$3 \div \frac{1}{3} =$	
24.	$\frac{1}{4} \div 4 =$	
25.	$\frac{3}{4} \div 4 =$	
26.	$\frac{1}{3} \div 3 =$	
27.	$\frac{2}{3} \div 3 =$	
28.	$\frac{1}{6} \div 2 =$	
29.	$\frac{5}{6} \div 2 =$	
30.	$\frac{1}{5} \div 5 =$	
31.	$\frac{3}{5} \div 5 =$	
32.	$\frac{3}{5} \div 4 =$	
33.	$\frac{1}{5} \div 6 =$	
34.	$6 \div \frac{1}{5} =$	
35.	$6 \div \frac{1}{4} =$	
36.	$7 \div \frac{1}{6} =$	
37.	$8 \div \frac{1}{7} =$	
38.	$9 \div \frac{1}{8} =$	
39.	$\frac{1}{8} \div 8 =$	
40.	$9 \div \frac{1}{9} =$	
41.	$\frac{1}{9} \div 8 =$	
42.	$7 \div \frac{1}{7} =$	
43.	$9 \div \frac{1}{6} =$	
44.	$\frac{1}{8} \div 6 =$	

#### **Divide Decimals**

1.	1 ÷ 1 =	
2.	1 ÷ 0.1 =	
3.	2 ÷ 0.1 =	
4.	7 ÷ 0.1 =	
5.	1 ÷ 0.1 =	
6.	10 ÷ 0.1 =	
7.	20 ÷ 0.1 =	
8.	60 ÷ 0.1 =	
9.	1 ÷ 1 =	
10.	1 ÷ 0.1 =	
11.	10 ÷ 0.1 =	
12.	100 ÷ 0.1 =	
13.	200 ÷ 0.1 =	
14.	800 ÷ 0.1 =	
15.	1 ÷ 0.1 =	
16.	1 ÷ 0.01 =	
17.	2 ÷ 0.01 =	
18.	9 ÷ 0.01 =	
19.	5 ÷ 0.01 =	
20.	50 ÷ 0.01 =	
21.	60 ÷ 0.01 =	
22.	20 ÷ 0.01 =	

23.	5 ÷ 0.1 =	
24.	0.5 ÷ 0.1 =	
25.	0.05 ÷ 0.1 =	
26.	0.08 ÷ 0.1 =	
27.	4 ÷ 0.01 =	
28.	40 ÷ 0.01 =	
29.	47 ÷ 0.01 =	
30.	59 ÷ 0.01 =	
31.	3 ÷ 0.1 =	
32.	30 ÷ 0.1 =	
33.	32 ÷ 0.1 =	
34.	32.5 ÷ 0.1 =	
35.	25 ÷ 5 =	
36.	2.5 ÷ 0.5 =	
37.	2.5 ÷ 0.05 =	
38.	3.6 ÷ 0.04 =	
39.	32 ÷ 0.08 =	
40.	56 ÷ 0.7 =	
41.	77 ÷ 1.1 =	
42.	4.8 ÷ 0.12 =	
43.	4.84 ÷ 0.4 =	
44.	9.63 ÷ 0.03 =	



Lesson 33: Create story contexts for numerical expressions and tape diagrams, and solve word problems.

#### **Divide Decimals**

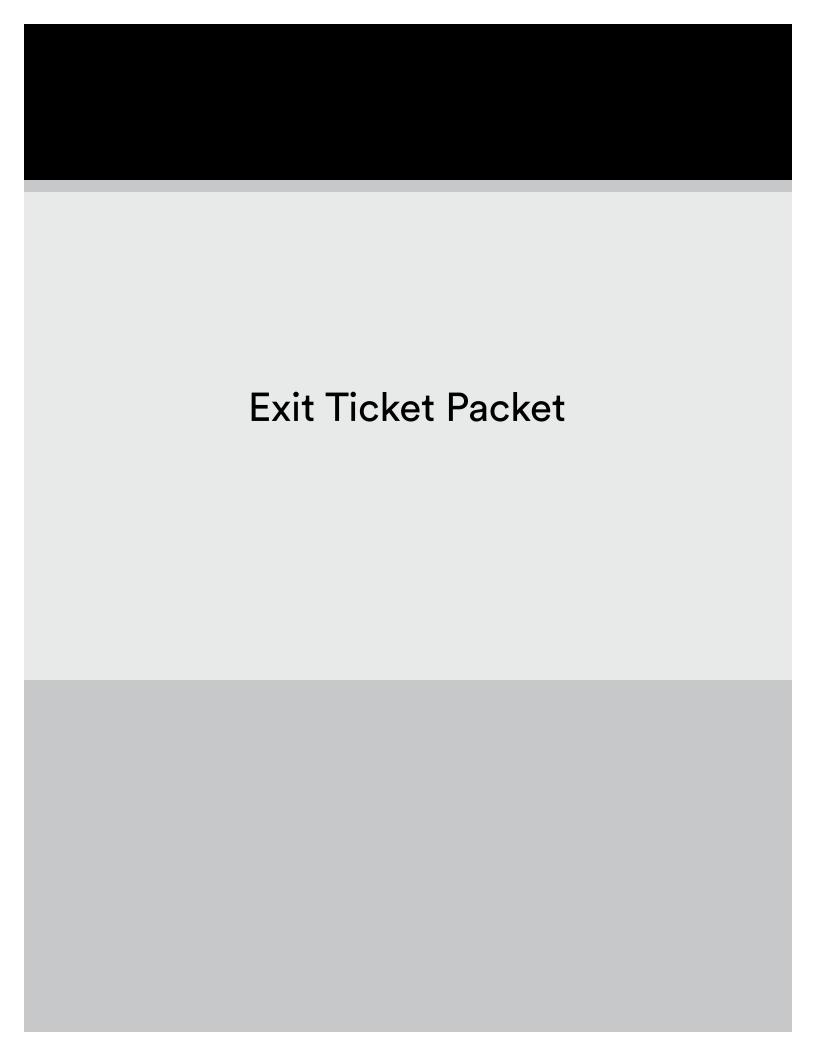
Number Correct: \_\_\_\_\_ Improvement: \_\_\_\_\_

1. 2.	10 ÷ 1 =	
2.		
	1 ÷ 0.1 =	
3.	2 ÷ 0.1 =	
4.	8 ÷ 0.1 =	
5.	1 ÷ 0.1 =	
6.	10 ÷ 0.1 =	
7.	20 ÷ 0.1 =	
8.	70 ÷ 0.1 =	
9.	1 ÷ 1 =	
10.	1 ÷ 0.1 =	
11.	10 ÷ 0.1 =	
12.	100 ÷ 0.1 =	
13.	200 ÷ 0.1 =	
14.	900 ÷ 0.1 =	
15.	1 ÷ 0.1 =	
16.	1 ÷ 0.01 =	
17.	2 ÷ 0.01 =	
18.	7 ÷ 0.01 =	
19.	4 ÷ 0.01 =	
20.	40 ÷ 0.01 =	
21.	50 ÷ 0.01 =	
22.	80 ÷ 0.01 =	

23.	4 ÷ 0.1 =	
23.	4 - 0.1 -	
24.	0.4 ÷ 0.1 =	
25.	0.04 ÷ 0.1 =	
26.	0.07 ÷ 0.1 =	
27.	5 ÷ 0.01 =	
28.	50 ÷ 0.01 =	
29.	53 ÷ 0.01 =	
30.	68 ÷ 0.01 =	
31.	2 ÷ 0.1 =	
32.	20 ÷ 0.1 =	
33.	23 ÷ 0.1 =	
34.	23.6 ÷ 0.1 =	
35.	15 ÷ 5 =	
36.	1.5 ÷ 0.5 =	
37.	1.5 ÷ 0.05 =	
38.	3.2 ÷ 0.04 =	
39.	28 ÷ 0.07 =	
40.	42 ÷ 0.6 =	
41.	88 ÷ 1.1 =	
42.	3.6 ÷ 0.12 =	
43.	3.63 ÷ 0.3 =	
44.	8.44 ÷ 0.04 =	



Lesson 33: Create story contexts for numerical expressions and tape diagrams, and solve word problems.



1. Draw a line plot for the following data measured in inches:

$$1\frac{1}{2}$$
,  $2\frac{3}{4}$ , 3,  $2\frac{3}{4}$ ,  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ ,  $3\frac{3}{4}$ , 3,  $3\frac{1}{2}$ ,  $2\frac{1}{2}$ ,  $3\frac{1}{2}$ 

2. Explain how you decided to divide your wholes into fractional parts and how you decided where your number scale should begin and end.

- 1. Draw a picture that shows the division expression. Then, write an equation and solve.
  - a.  $3 \div 9$

b. 4 ÷ 3

- 2. Fill in the blanks to make true number sentences.

- a.  $21 \div 8 =$  b.  $\frac{7}{4} =$  c.  $4 \div 9 =$  d.  $1\frac{2}{7} =$  ...  $\div$  ...

Name \_\_\_\_\_

	A baker made 9 cupcakes, each a different type. Four people want to share them equally. How many cupcakes will each person get?						
Fill in	I in the chart to show how to solve the problem.						
	Division Unit Forms Fractions and Mixed numbers Standard Algorithm						
		[	Draw to show your th	inking:			



Name	Date	

Matthew and his 3 siblings are weeding a flower bed with an area of 9 square yards. If they share the job equally, how many square yards of the flower bed will each child need to weed? Use a tape diagram to show your thinking.



Name		Date
A grass each h	shopper covered a distance of 5 yards in 9 equal hops	5. How many yards did the grasshopper travel on
a.	Draw a picture to support your work.	
b.	How many yards did the grasshopper travel after ho	opping twice?



1. Find the value of each of the following.



a. 
$$\frac{1}{4}$$
 of 16 =

b. 
$$\frac{3}{4}$$
 of 16 =

2. Out of 18 cookies,  $\frac{2}{3}$  are chocolate chip. How many of the cookies are chocolate chip?



Name \_\_\_\_\_

Solve using a tape diagram.

a. 
$$\frac{3}{5}$$
 of 30

b. 
$$\frac{3}{5}$$
 of a number is 30. What's the number?

c. Mrs. Johnson baked 2 dozen cookies. Two-thirds of the cookies were oatmeal. How many oatmeal cookies did Mrs. Johnson bake?



Name			

Solve each problem in two different ways as modeled in the example.

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

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

a. 
$$\frac{2}{3} \times 15$$

$$\frac{2}{3} \times 15$$

b. 
$$\frac{5}{4} \times 12$$

$$\frac{5}{4} \times 12$$



- 1. Express 36 minutes as a fraction of an hour: 36 minutes = \_\_\_\_\_ hour
- 2. Solve.
- a.  $\frac{2}{3}$  feet = \_\_\_\_\_ inches b.  $\frac{2}{5}$  m = \_\_\_\_ cm c.  $\frac{5}{6}$  year = \_\_\_\_ months

1. Rewrite these expressions using words.

a. 
$$\frac{3}{4} \times \left(2\frac{2}{5} - \frac{5}{6}\right)$$

b. 
$$2\frac{1}{4} + \frac{8}{3}$$

2. Write an expression, and then solve.

Three less than one-fourth of the product of eight thirds and nine



Name	Date	
Use a tape diagram to solve.		
$\frac{2}{3}$ of 5		



Name	Date
In a classroom, $\frac{1}{6}$ of the students are wearing blue shirts, and $\frac{2}{3}$ a	are wearing white shirts. There are 36

students in the class. How many students are wearing a shirt other than blue or white?



1. Solve. Draw a rectangular fraction model, and write a number sentence to show your thinking.

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

2. Ms. Sheppard cuts  $\frac{1}{2}$  of a piece of construction paper. She uses  $\frac{1}{6}$  of the piece to make a flower. What fraction of the sheet of paper does she use to make the flower?



Name	Date	

1. Solve. Draw a rectangular fraction model to explain your thinking. Then, write a number sentence.

$$\frac{1}{3}$$
 of  $\frac{3}{7}$  =

2. In a cookie jar,  $\frac{1}{4}$  of the cookies are chocolate chip, and  $\frac{1}{2}$  of the rest are peanut butter. What fraction of all the cookies is peanut butter?



Name	Date	
141116		

- 1. Solve. Draw a rectangular fraction model to explain your thinking. Then, write a multiplication sentence.
  - a.  $\frac{2}{3}$  of  $\frac{3}{5}$  =

b.  $\frac{4}{9} \times \frac{3}{8} =$ 

2. A newspaper's cover page is  $\frac{3}{8}$  text, and photographs fill the rest. If  $\frac{2}{5}$  of the text is an article about endangered species, what fraction of the cover page is the article about endangered species?



Name _	Date	

Solve and show your thinking with a tape diagram.

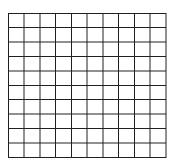
Three-quarters of the boats in the marina are white,  $\frac{4}{7}$  of the remaining boats are blue, and the rest are red. If there are 9 red boats, how many boats are in the marina?

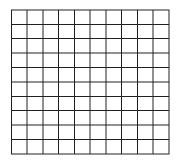


Name	Date	
Ivallie	Date	

1. Multiply and model. Rewrite the expression as a number sentence with decimal factors.

$$\frac{1}{10} \times 1.2$$





2. Multiply.



Name	Date

Multiply. Do at least one problem using unit form and at least one problem using fraction form.

b. 
$$1.6 \times 0.7 =$$

d. 
$$2.2 \times 0.42 =$$



Name _	Date	

Convert. Express your answer as a mixed number, if possible.



Convert. Express your answer as a mixed number.

a. 
$$2\frac{1}{6}$$
 ft = \_\_\_\_\_ in

b. 
$$3\frac{3}{4}$$
 ft = \_\_\_\_\_ yd

c. 
$$2\frac{1}{2}c = ____pt$$

d. 
$$3\frac{2}{3}$$
 years = \_\_\_\_\_ months

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Fill in the blanks to make the equation true.

$$\frac{9}{4} \times 1 = \frac{9}{4} \times - = \frac{45}{20}$$

2. Express the fractions as equivalent decimals.

a. 
$$\frac{1}{4} =$$

b. 
$$\frac{2}{5} =$$

c. 
$$\frac{3}{25} =$$

d. 
$$\frac{5}{20}$$
 =

Name	Date

Fill in the blank to make the number sentences true. Explain how you know.

a. 
$$\frac{}{3} \times 11 > 11$$

b. 
$$5 \times \frac{1}{8} < 5$$

c. 
$$6 \times \frac{2}{-} = 6$$



Name \_\_\_\_\_ Date \_\_\_\_\_

1. Fill in the blank using one of the following scaling factors to make each number sentence true.

- a. 3.06 × \_\_\_\_< 3.06

2. Will the product of  $22.65 \times 0.999$  be greater than or less than 22.65? Without calculating, explain how you know.

Name	Date

1. An artist builds a sculpture out of metal and wood that weighs 14.9 kilograms.  $\frac{3}{4}$  of this weight is metal, and the rest is wood. How much does the wood part of the sculpture weigh?

2. On a boat tour, there are half as many children as there are adults. There are 30 people on the tour. How many children are there?



1. Draw a tape diagram and a number line to solve. Fill in the blanks that follow.

a.  $5 \div \frac{1}{2} =$ \_\_\_\_\_

There are \_\_\_\_ halves in 1 whole.

There are \_\_\_\_ halves in 5 wholes.

5 is  $\frac{1}{2}$  of what number? \_\_\_\_\_

b.  $4 \div \frac{1}{4} =$ \_\_\_\_\_

There are \_\_\_\_ fourths in 1 whole.

There are \_\_\_\_ fourths in \_\_\_\_ wholes.

4 is  $\frac{1}{4}$  of what number? \_\_\_\_\_

2. Ms. Leverenz is doing an art project with her class. She has a 3 foot piece of ribbon. If she gives each student an eighth of a foot of ribbon, will she have enough for her class of 22 students?

1. Solve. Support at least one of your answers with a model or tape diagram.

a. 
$$\frac{1}{2} \div 4 =$$
\_\_\_\_\_

b. 
$$\frac{1}{8} \div 5 =$$
\_\_\_\_\_

2. Larry spends half of his workday teaching piano lessons. If he sees 6 students, each for the same amount of time, what fraction of his workday is spent with each student?



Name	Date

1. Kevin divides 3 pieces of paper into fourths. How many fourths does he have? Draw a picture to support your response.

2. Sybil has  $\frac{1}{2}$  of a pizza left over. She wants to share the pizza with 3 of her friends. What fraction of the original pizza will Sybil and her 3 friends each receive? Draw a picture to support your response.



Name \_\_\_\_\_ Date \_\_\_\_\_

Create a word problem for the following expressions, and then solve.

a. 
$$4 \div \frac{1}{2}$$

b. 
$$\frac{1}{2} \div 4$$



1. 8.3 is equal to

2. 28 is equal to

\_\_\_\_tenths

\_\_\_\_\_ hundredths

hundredths

\_\_\_\_\_tenths

4. 
$$267.4 \div \frac{1}{10} =$$
\_\_\_\_\_

5. 
$$632.98 \div \frac{1}{100} =$$

Name \_\_\_\_\_

Rewrite the division expression as a fraction and divide	
a. 3.2 ÷ 0.8	b. 3.2 ÷ 0.08
c. 7.2 ÷ 0.9	d. 0.72 ÷ 0.09



Name	Date

Estimate first, and then solve using the standard algorithm. Show how you rename the divisor as a whole number.

1.  $6.39 \div 0.09$ 

2.  $82.14 \div 0.6$ 



1. Write an equivalent expression in numerical form.

A fourth as much as the product of two-thirds and 0.8

2. Write an equivalent expression in word form.

a. 
$$\frac{3}{8} \times (1 - \frac{1}{3})$$

b. 
$$(1-\frac{1}{3}) \div 2$$

3. Compare the expressions in 2(a) and 2(b). Without evaluating, determine which expression is greater, and explain how you know.

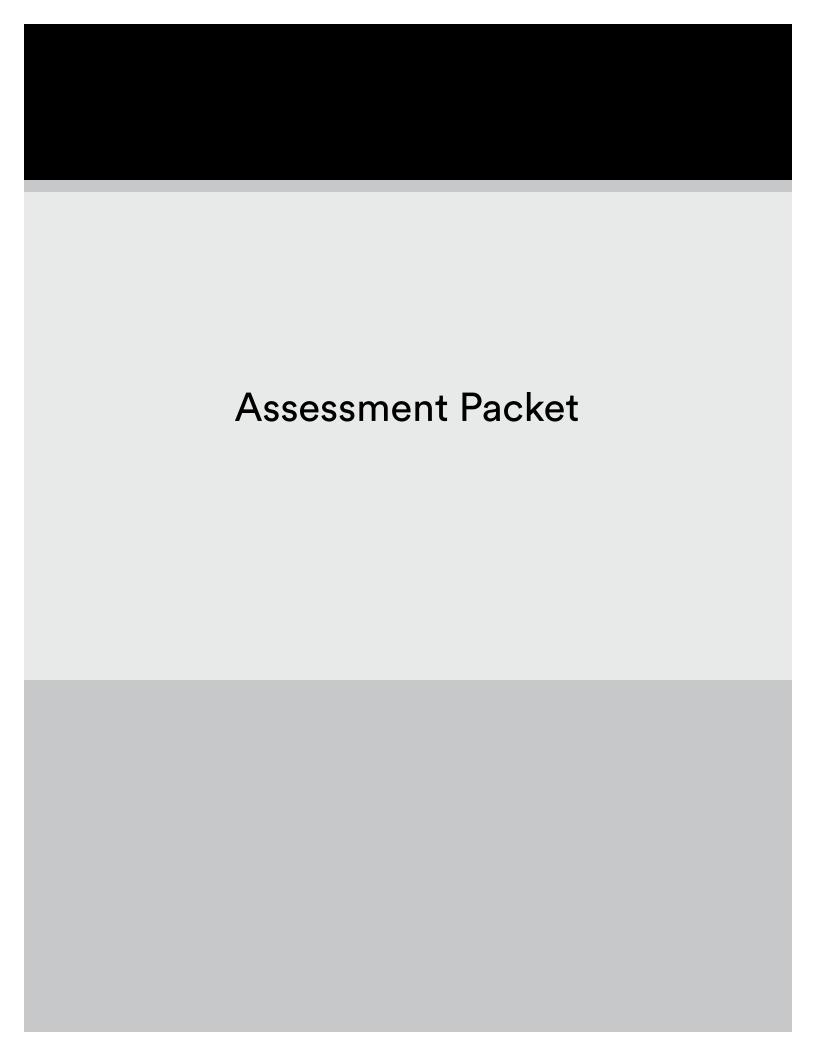
Name _	Da	ate
	-	

An entire commercial break is 3.6 minutes.

a. If each commercial takes 0.6 minutes, how many commercials will be played?

b. A different commercial break of the same length plays commercials half as long. How many commercials will play during this break?





1. Multiply or divide. Draw a model to explain your thinking.

a. 
$$\frac{1}{2} \times 6$$

b. 
$$\frac{1}{2} \times 7$$

c. 
$$\frac{3}{4} \times 12$$

d. 
$$\frac{2}{5} \times 30$$

e. 
$$\frac{1}{3}$$
 of 2 feet = \_\_\_\_\_ inches

f. 
$$\frac{1}{6}$$
 of 3 yards = \_\_\_\_\_feet

g. 
$$\left(3 + \frac{1}{2}\right) \times 14$$

h. 
$$4\frac{2}{3} \times 13$$

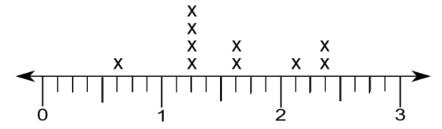
2. If the whole bar is 3 units long, what is the length of the shaded part of the bar? Write a multiplication equation for the diagram, and then solve.



- 3. Circle the expression(s) that are equal to  $\frac{3}{5} \times 6$ . Explain why the others are *not* equal using words, pictures, or numbers.
  - a.  $3 \times (6 \div 5)$
  - b.  $3 \div (5 \times 6)$
  - c.  $(3 \times 6) \div 5$
  - d.  $3 \times \frac{6}{5}$

- 4. Write the following as expressions.
  - a. One-third the sum of 6 and 3.
  - b. Four times the quotient of 3 and 4.
  - c. One-fourth the difference between  $\frac{2}{3}$  and  $\frac{1}{2}$ .
- 5. Mr. Schaum used 10 buckets to collect rainfall in various locations on his property. The following line plot shows the amount of rain collected in each bucket in gallons. Write an expression that includes multiplication to show how to find the total amount of water collected in gallons. Then, solve your expression.

Amount of Rain (in gallons)



6. Mrs. Williams uses the following recipe for crispy rice treats. She decides to make  $\frac{2}{3}$  of the recipe.

2 cups melted butter

24 oz marshmallows

13 cups rice crispy cereal

a. How much of each ingredient will she need? Write an expression that includes multiplication. Solve by multiplying.

b. How many fluid ounces of butter will she use? (Use your measurement conversion chart, if you wish.)

c. When the crispy rice treats have cooled, Mrs. Williams cuts them into 30 equal pieces. She gives twofifths of the treats to her son and takes the rest to school. How many treats will Mrs. Williams take to school? Use any method to solve.



Date \_\_\_\_\_ Name \_\_\_\_\_

1. Multiply or divide. Draw a model to explain your thinking.

a. 
$$\frac{1}{3} \times \frac{1}{4}$$

b. 
$$\frac{3}{4}$$
 of  $\frac{1}{3}$ 

c. 
$$\frac{3}{4} \times \frac{3}{5}$$

d. 
$$4 \div \frac{1}{3}$$

e. 
$$5 \div \frac{1}{4}$$

f. 
$$\frac{1}{4} \div 5$$

- 2. Multiply or divide using any method.
  - a.  $1.5 \times 32$

b.  $1.5 \times 0.32$ 

c.  $12 \div 0.03$ 

d.  $1.2 \div 0.3$ 

e.  $12.8 \times \frac{3}{4}$ 

f. 102.4 ÷ 3.2

3. Fill in the chart by writing an equivalent expression.

a.	One-fifth the sum of one-half and one-third	
b.	Two and one-half times the sum of nine and twelve	
C.	Twenty-four divided by the difference between $1\frac{1}{2}$ and $\frac{3}{4}$	



Module 4:

Multiplication and Division of Fractions and Decimal Fractions

- 4. A castle has to be guarded 24 hours a day. Five knights are ordered to split each day's guard duty equally. How long will each knight spend on guard duty in one day?
  - a. Record your answer in hours.

b. Record your answer in hours and minutes.

c. Record your answer in minutes.



5. On the blank, write a division expression that matches the situation	5. C	n the blank	, write a divisi	ion expression tha	it matches the situation
---	------	-------------	------------------	--------------------	--------------------------

Mark and Jada share 5 yards of ribbon equally. How much ribbon will each get?

It takes half of a yard of ribbon to make a bow. How many bows can be made with 5 yards of ribbon?

c. Draw a diagram for each problem and solve.

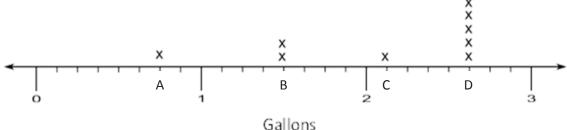
d. Could either of the problems also be solved by using  $\frac{1}{2} \times 5$ ? If so, which one(s)? Explain your thinking.



- 6. Jackson claims that multiplication always makes a number bigger. He gave the following examples:
  - If I take 6, and I multiply it by 4, I get 24, which is bigger than 6.
  - If I take  $\frac{1}{4}$ , and I multiply it by 2 (whole number), I get  $\frac{2}{4}$ , or  $\frac{1}{2}$ , which is bigger than  $\frac{1}{4}$ .

Jackson's reasoning is incorrect. Give an example that proves he is wrong, and explain his mistake using pictures, words, or numbers.

7. Jill collected honey from 9 different beehives and recorded the amount collected, in gallons, from each hive in the line plot shown:



- a. She wants to write the value of each point marked on the number line above (Points A–D) in terms of the largest possible whole number of gallons, quarts, and pints. Use the line plot above to fill in the blanks with the correct conversions. (The first one is done for you.)
  - A. 0 gal 3 qt 0 pt
  - B. \_\_\_\_\_ gal \_\_\_\_ qt \_\_\_\_pt
  - C. \_\_\_\_\_ gal \_\_\_\_ qt \_\_\_\_pt
  - D. \_\_\_\_\_ gal \_\_\_\_ qt \_\_\_\_pt

b. Find the total amount of honey collected from the five hives that produced the most honey.

c. Jill collected a total of 19 gallons of honey. If she distributes all of the honey equally between 9 jars, how much honey will be in each jar?

d. Jill used  $\frac{3}{4}$  of a jar of honey for baking. How much honey did she use baking?



e. Jill's mom used  $\frac{1}{4}$  of a gallon of honey to bake 3 loaves of bread. If she used an equal amount of honey in each loaf, how much honey did she use for 1 loaf?

f. Jill's mom stored some of the honey in a container that held  $\frac{3}{4}$  of a gallon. She used half of this amount to sweeten tea. How much honey, in cups, was used in the tea? Write an equation, and draw a tape diagram.

g. Jill uses some of her honey to make lotion. If each bottle of lotion requires  $\frac{1}{4}$  gallon, and she uses a total of 3 gallons, how many bottles of lotion does she make?

