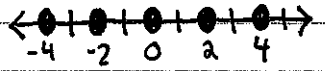
Practice Set #1:

a. $-4, -1, 0, 2, 3$
b. -4
c. $-2 > -4$
d. 

e. 3
f. 3
g. -10 and 10
h. 0

Practice Set #2:

a. Identity Property of Multiplication
b. Commutative Property of Addition
c. Associative Property of Addition
d. Zero Property of Multiplication
e. $35 - 12 = (23)$
f. -51
g. Commutative property of multiplication
Associative Property of Multiplication
h. use addition
i. use multiplication
j. $m = 36$
k. $n = 4$

Practice Set #3:

a. Combining, Separating, Comparing.
b. Alberto went to the store to buy bread and milk, which together cost $4.83. If the clerk gave him $15.17 in change, how much money did Alberto give the clerk?
c. Anna went to the store to buy snacks for a party. If she paid with a $20 bill, and received $8.45 change, how much did the snacks cost?
d. comparing; $215,768 - 180,635 = d$; $d = 35,133$ people
e. separating; $20 - x = 10.50$; $x = \$9.50$ Reasonable because spent a little less than half the money.
f. combining; $29 + 28 + 31 = t$; $t = 88$ students
g. B. $\$10.00 - \$6.29 = c$

Practice Set #4:

a. 960 tiles

b. D. $4t = \$95.00$

c. She can fill 12 rolls. This is reasonable because she needs 650 dimes to fill 13 rolls, but she is 18 dimes short. Therefore; 12 rolls are completely filled.

Practice Set #5:

a. 10 minutes

b. 18 questions. (Reasonable because $3/5$ is a little more than $1/2$ and $1/2$ of 30 is 15.)

c. 36 miles per gallon.

d. $5/12$, $5/10$, $5/6$

Practice Set #6:

a. length: 5 yards
width: 4 yards

b. 74 inches

c. 7,000 meters

Practice Set #7:

a. 7 miles/hour

b. 400 miles

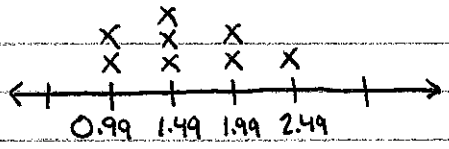
c. about 17 minutes

d. D. at least one classroom has more than 26 students.

e. 91

f. 194 cm

g.



h. mean = \$1.62
median = \$1.49
mode = \$1.49
range = \$1.50

i. Although Rudy used the mean, I would use the mode to predict what he would usually pay (\$1.49) because this is the most frequent occuring price. (and also the median)

Practice Set #8:

a. 40 feet of baseboards
96 tiles

b. $P = 14\text{cm}$
$A = 12\text{cm}^2$

c. $P = 42\text{cm}$
$A = 108\text{cm}^2$

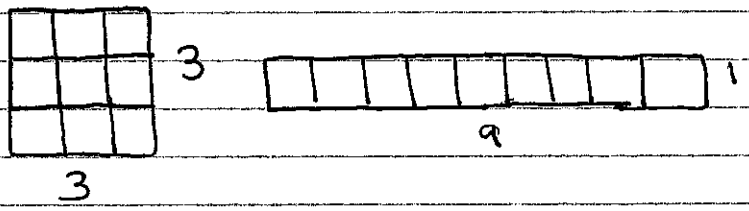
d. Perimeter is also 3 times greater.
Area is 9 times greater.

e. 3-by-4 rectangle
2-by-6 rectangle

f. Perimeter = 54 feet
Area = 152 feet^2

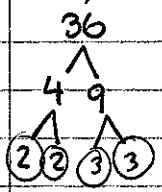
Practice Set #9:

a. 9 is a composite number



b. 2, 3, 5, 7, 11, 13, 17, 19, 23, 29

c.



d.

$$\begin{array}{r|l} & 1 \\ 2 & 2 \\ \hline 2 & 4 \\ \hline 5 & 20 \\ \hline 3 & 60 \end{array}$$

$60 = 2^2 \cdot 3 \cdot 5$

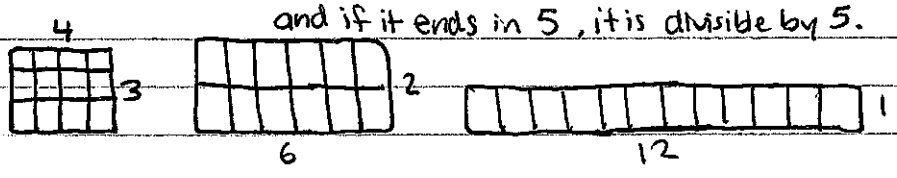
e. $25 = 5 \cdot 5$

f. $100 = 2^2 \cdot 5^2$

g. $16 = 2 \cdot 2 \cdot 2 \cdot 2 = 2^4$

h. D. 7 because if it ends in 4 or 6 it is even (divisible by 2) and if it ends in 5, it is divisible by 5.

i.



Practice Set #10:

a. whole, integer, rational

b. integer, rational

c. rational

d. $\frac{20}{36} = \frac{2 \cdot 2 \cdot 5}{2 \cdot 2 \cdot 3 \cdot 3} = \boxed{\frac{5}{9}}$

e. $\frac{36}{108} = \frac{2 \cdot 2 \cdot 3 \cdot 3}{2 \cdot 2 \cdot 3 \cdot 3 \cdot 3} = \boxed{\frac{1}{3}}$

f. $\frac{75}{100} = \frac{3 \cdot 5 \cdot 5}{2 \cdot 2 \cdot 5 \cdot 5} = \boxed{\frac{3}{4}}$

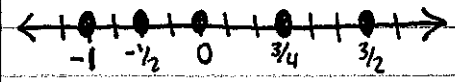
g. $\frac{3}{5} \overset{\times 4}{=} \frac{12}{20}$ ($\times 4$)

h. $\frac{3}{4} \overset{\times 5}{=} \frac{15}{20}$ ($\times 5$)

i. $\frac{1}{4} \overset{\times 25}{=} \frac{25}{100}$ ($\times 25$)

j. $\frac{3}{5} < \frac{3}{4}$

k.



l. $9/4 = 2\,1/4$

m. Identity Property of multiplication

n. $3 - 5 = -2$

↑ whole ↑ whole ↑ not a whole #

Practice Set #11:

a. 80%
b. 70%
c. $16.\bar{6}\%$ or $16\frac{2}{3}\%$
d. $\frac{1}{20}$
e. $\frac{1}{2}$
f. $\frac{1}{8}$
g. 3%, 35%, 75%, 100%
h. $\frac{1}{10}$, $33\frac{1}{3}\%$, $\frac{1}{2}$, 65%
i. 60%
j. 15 points

Practice Set #12:

a. Eleven and twelve hundredths
b. Three hundred seventy-five thousandths
c. 0.6
d. 2.25
e. 0.005
f. $\frac{1}{20}$
g. $\frac{1}{40}$
h. $1\frac{1}{5}$
i. $\frac{1}{1000}$
j. 80%
k. 130%
l. 87.5%
m. 0.2%
n. 0.02
o. 0.2
p. 0.24
q. 0.003
r. $-0.4, \frac{1}{2}, 0.6, 2.3$
s. 9 inches
t. $3.60
u. $3.20

Practice Set #13:

a. 1
b. 0
c. 3/8
d. 1/3
e. 1 3/10
f. 1/12
g. 5 5/6
h. 4 1/2
i. 5 1/6
j. 5 5/6
k. No because 5/6 is greater than 1/3 = 2/6.
l. 35 1/2 inches
m. 36 1/4 inches

Practice Set #14:

a. $48\ in^2$
b. 4
c. 48
d. $w = 11$
e. $m = 24$
f. $n = 14$
g. $x = 6$
h. $d = 32$
i. $z = 2$
j. $a = 5$
k. $f = 7$
l. $r = 6$ rides

Practice Set #15:

a. 100,000
b. 81
c. $225\ cm^2$
d. 11
e. 2
f. 5
g. $5xy^3z^2$
h. a^3b
i. $3x^3y^2$
j. $400\ ft^2$

Practice Set #16:

a. irrational

b. D. $\sqrt{7}$

c. D. $\sqrt{5}$ because it is between $\sqrt{4}=2$ and $\sqrt{9}=3$.

d. $-0.6, 0, 0.5, \frac{3}{4}, 1, \sqrt{2}$

e. 20 mm

f. $\sqrt{3}$ cm

g. 3.16

h. 4.47

i. 6.32

j. $\sqrt{40}$

Practice Set #17:

a. 1,200,000

b. 3.1416

c. $2.20

d. N/A

e. 4000 + 5000 = 9,000

f. 12 • 10 = 120

g. Reasonable estimate: 40 × $10 = $400. Gus forgot about the decimal point when calculating.

h. Her calculation is reasonable because if we round up, the area is 12 ft × 11 ft = 132 ft^2. Her area calculation is 124 ft^2, which is just a little less.

i. He has about 3 hrs. Multiply by 60 mph, and he can drive 180 miles. So yes, he can reach Dallas (157 miles away) by 9pm.

Practice Set #18:

a. line PQ or $\overleftrightarrow{PQ}$

b. ray PQ or $\overrightarrow{PQ}$

c. line segment PQ or $\overline{PQ}$

d. parallel lines

e. perpendicular lines

f. acute

g. obtuse

h. right

i. straight

j. 135° (subtract 45° from 180°)

Practice Set #19:

a. hexagon, irregular
b. C. □ BACD
c. octagon
d. dodecagon
e. ABEF
f. triangle B.
g. similar: A, B, D
congruent: B, D

Practice Set #20:

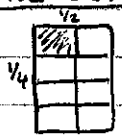
a. isosceles, right
b. equilateral, acute (equiangular)
c. scalene, obtuse
d. $x = 45°$
$y = 60°$
e. 6 inches^2
f. 25 cm^2
g. 18 ft^2
h. △ isosceles right triangle 45°, 45°, 90°

Practice Set #21:

a. $6 + 2w$
b. $5x - 15$
c. $3(3x + 2)$
d. $2(4w - 5)$
e. Distributive Property
f. Its easier to do the mental math this way than doing 3×28
$3(30 - 2) = 90 - 6 = \boxed{84}$
g. 11
h. 7
i. 20
j. 5
k. 10
l. 4
m. $(2^2 + 2) \times 2 - 2 \div 2 = 11$

Practice Set #22:

a. 1/8



b. 1/6
c. 3/8
d. 5/9
e. 3/8
f. 1/2
g. 8/3
h. 1/4
i. 1 1/2
j. 1 2/3
k. 6
l. 1 1/2
m. 8/9
n. 1 1/8

Practice Set #23:

a. $3\frac{3}{4}$ in^2
b. 3 1/2 cups
c. 13 rows
169 tiles
d. 3/8
e. 6/5
f. 1/5
g. 2 1/2
h. 6 1/4
i. 9/16
j. 1 7/9

Practice Set #24:

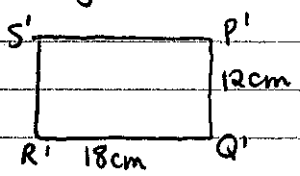
a. -1, 0, 0.3, 1/2, 1.75, 2
b. 0.036 > 0.0354
c. 20.25
d. 16.2
e. 1.1
f. 7.86
g. 0.33
h. 0.06
i. use addition
j. use subtraction: 26.42 − 1.50
24.92 inches

Practice Set #25:

a. 0.048
b. 0.09
c. 6,750
d. 0.024
e. 20
f. 4.8
g. 0.3
h. $22.94
i. $1.25 per pound

Practice Set #26:

a. slide
b. turn
c. flip
d. enlargement
e.



f. Perimeter of □P'Q'R'S' is 3 times the Perimeter of □PQRS
g. 9 times the original area

Practice Set #27:

a. x^7
b. x^3
c. x^6
d. $2^5 = 32$
e. $2^3 = 8$
f. $2^{10} = 1,024$
g. 10^9
h. 10^4

Practice Set #28:

a. 2.5×10^6
b. one point eight times ten to the eighth
c. 200,000
d. 750,000,000
e. 1,609
f. 30,500
g. 3.65×10^5
h. 2.95×10^8
i. 7.05×10^4
j. 2.5×10^7

Practice Set #29:

a. 3 to 4
b. 4 to 3
c. 5 to 6
d. 6 to 5
e. 5 to 3
f. 2 minutes per page

Practice Set #30:

a. $0.\overline{27}$
b. $0.\overline{2}$
c. $2.\overline{6}$
d. $0.0\overline{3}$
e. 0.333
f. 0.667
g. 0.364
h. 1.867
i. $0.6, 0.66, 0.\overline{6}$
j. $0.0\overline{6}, 0.3, 0.\overline{3}, \frac{1}{2}, 0.\overline{5}$