6.4

With the denominator given, write one fraction that is close to, but larger than, the given fraction and one fraction that is close to, but smaller than, the given fraction.

larger smaller

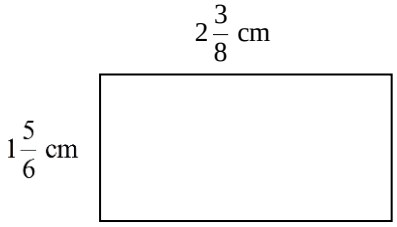
a) $\frac{2}{5}$, denominator 180

b) $\frac{1}{6}$, denominator 72

7.1

Determine the perimeter and area of the rectangle.

Show your work.



Perimeter: _____ Area: _____

7.2

Determine the sale price of a chair originally priced at $280 marked 15% off. Show two distinct arithmetic methods.

Method I

Method II

7.3

Kiley has $\frac{7}{8}$ cups of sugar and a cookie recipe calls for $\frac{1}{4}$ cups. How many full recipes can she make and how much sugar will she have left over?

A. 4 recipes and $\frac{1}{2}$ cup of sugar left over

B. 3 recipes and $\frac{1}{8}$ cup of sugar left over

C. 7 recipes and $\frac{1}{8}$ cup of sugar left over

D. 3 recipes and $\frac{1}{2}$ cup of sugar left over

E. 4 recipes and $\frac{1}{4}$ cup of sugar left over

8.1

At Riverdale Middle School, $\frac{1}{6}$ of the students are in the band. Two out of every three students in the band are girls. The strip diagram shown represents all students in the school. Divide and label the rectangle according to the information given.

a) The number of boys in the band is _____ times the number of girls in the band.

b) What fraction of the students who play in the band are boys?_____

c) What fraction of the students at Riverdale are boys who play in the band?_____

d) The number of girls in the band is _____ times the number of students in the school.

8.2

Three construction crews worked on a repaving project. Crew A completed one third as much as Crew B. Crew C completed twice as much as Crew B. If they repaved 12 miles of highway, how many miles did Crew B complete?

A. 2.4 miles

B. 4 miles

C. 3 miles

D. 3.6 miles

E. 1.2 miles

9.2

A child says that the two situations below would give the same "chocolatey-ness," since "Each way has one more spoonful of chocolate sprinkles." Do they?

I 3 spoonfuls of chocolate sprinkles on 2 scoops of vanilla ice cream

II 4 spoonfuls of chocolate sprinkles on 3 scoops of vanilla ice cream

Amount of chocolate sprinkles per scoop of ice cream in I:_____

Amount of chocolate sprinkles per scoop of ice cream in II:_____

Which situation is more "chocolatey?" Circle your answer: I II

If you had 17 scoops of ice cream and you wanted to match the "chocolatey-ness" of situation II, show the use of the unit ratio to determine the number of spoonfuls of sprinkles you would need.

9.3

Travis' rent is now $864. That is 20% more than his rent last year. What was his rent last year? Make a strip drawing to illustrate this problem. Include labels and numbers as appropriate.

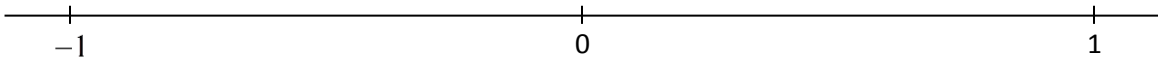
Set up a proportion that could be used to solve this problem.

Answer: _____

10.1

Place these numbers correctly on the number line given.

$$\frac{121}{240},\ -\frac{60}{79},\ -0.25,\ \frac{205}{300},\ -\frac{9}{32},\ \frac{120}{241}$$



10.2

Match the operations and the names of the properties by placing the correct number to the left of the letters A-E. Not all properties on the right will necessarily be used; some may be used more than once.

_____A) $^{-}3\times(2+5) = {}^{-}3\times(5+2)$

_____B) $3 \times (2+5) = (3\times2) + (3\times5)$

_____C) $4+\left({}^{-}3+{}^{-}1\right)+2=\left(4+{}^{-}3\right)+\left({}^{-}1+2\right)$

_____D) $5 + (8 + 0) = 5 + 8$

_____E) $^{-}4\times1={}^{-}4$

_____F) $6+\left(4+{}^{-}4\right)=6+0$

_____G) $\frac{2}{3}\times\frac{3}{2}=1$

_____H) $3\times(5\times0)=(5\times0)\times3$

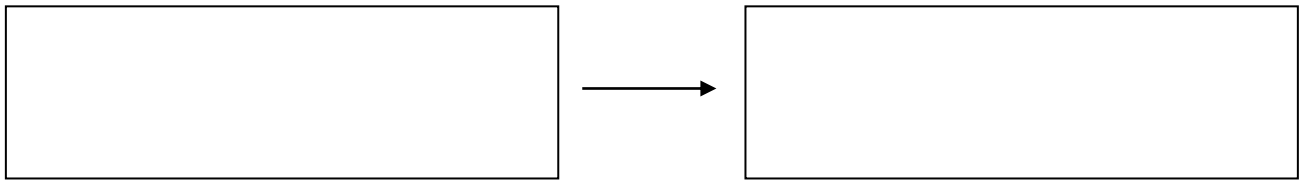
_____I) $3+\left(2+{}^{-}5\right)=(3+2)+{}^{-}5$

1. Associative property of multiplication
2. Additive identity property
3. Multiplicative inverse property
4. Additive inverse property
5. Commutative property of addition
6. Associative property of addition
7. Distributive property of × over +
8. Multiplicative identity property
9. Commutative property of multiplication

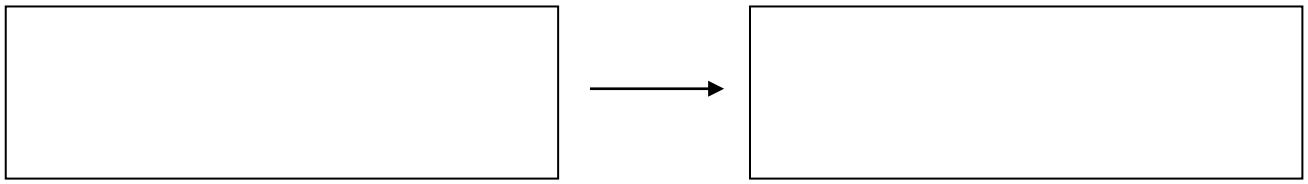
Show how to use open (positive) and shaded (negative) chips to model the following:

A. $4+\left(^{-}6\right)$

Answer



B. $5-\left(^{-}2\right)$



10.3

$3\frac{1}{5}\times\left(-\frac{7}{12}\right)=$

A. $1\frac{17}{30}$

B. $-1\frac{17}{30}$

C. $-1\frac{13}{15}$

D. $1\frac{13}{15}$

E. None of the above

Show the use of signed number arithmetic to solve these problems. Write your answer in sentence form.

A. Since the recession began, Mike's sandwich shop has been losing 20 customers per month.

If this trend continues, how will his number of customers in 5 months compare to his present number of customers?

B. Since the recession began, Mike's sandwich shop has been losing 20 customers per month.

Four months ago, how did his number of customers compare to this month?