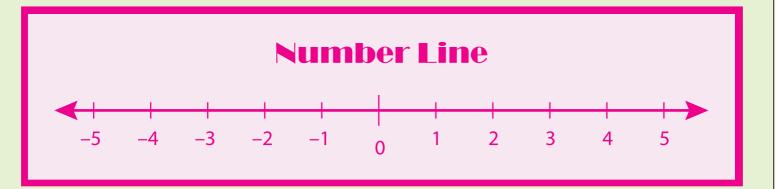
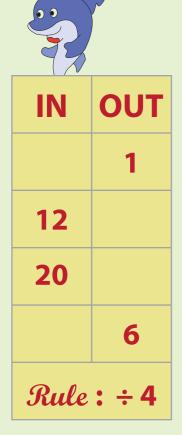
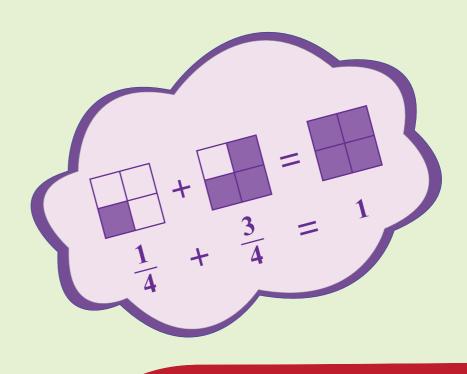
Number Systems

7th Grade







Workbook 1

(Adding and Subtracting Integers)

Simplify.

(Adding and Subtracting Integers)

Simplify.

Missing Integers

Fill in the missing integer(s).

1)
$$(-12) + \underline{\hspace{1cm}} = 0$$

3)
$$_{---}$$
 - 10 = 0

$$4) 2 - = 0$$

$$(-19) - \underline{\hspace{1cm}} = 0$$

$$-$$
 5 = 0

9)
$$+ (-14) = 0$$

10) _____ -
$$(-1)$$
 = 0

$$11)$$
 6 + ____ = 0

15)
$$(-3)$$
 - ____ = 0

16)
$$__$$
 + (-16) = 0

Missing Integers

Fill in the missing integer(s).

1)
$$(-12) + \underline{\hspace{1cm}} = 3$$

3)
$$----- + (-6) = -20$$

4) ____ - 17 =
$$-1$$

$$6)$$
 $3 + _{---} = -16$

7) _____ -
$$(-3)$$
 = -6

10)
$$(-1)$$
 - ____ = -10

12)
$$_{---}$$
 + 5 = -15

13)
$$\underline{\hspace{1cm}} + (-15) = -5$$

15)
$$_{---}$$
 - 20 = -31

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Subtracting Like Fractions

Jennifer visits the store to buy $\frac{1}{9}$ of a yard of a blue fabric and $\frac{4}{9}$ of a yard of green fabric to make new pillow covers for a doll house. How many more yards of green fabric did Jennifer buy than blue fabric?

2) Keith and Lindsay are building sandcastles on the seashore. Keith collects $7\frac{1}{4}$ cups of sand in his bucket and Lindsay scoops up $3\frac{3}{4}$ cups of sand in her bucket. How many more cups of sand did Keith collect than Lindsay?

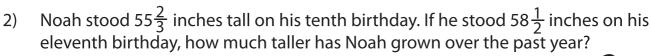
3) A water tank is five-sixth full. After a couple of hours, the capacity of the tank is reduced by one-sixth. What fraction of the water tank is now filled with water?

4) Nine-fifth of the animals in a rescue home are dogs and $\frac{7}{5}$ th of them are cats. How many more dogs are there than the cats?

Raleigh, NJ received $9\frac{2}{7}$ inches of snowfall on Christmas Eve. The town received $4\frac{5}{7}$ inches of snow on New Year's Day. How many more inches did it snow on Christmas Eve than New Year's Day?

Subtracting Unlike Fractions

Brooke watched a YouTube video that featured a Filipino chicken recipe. She bought $5\frac{3}{4}$ pounds of chicken from the local store. If the recipe called for $2\frac{1}{2}$ pounds of chicken, how many pounds of chicken remain unused?





3) Macy jogged and walked a total of $\frac{37}{9}$ miles in Central Park today. If she jogged a distance of $\frac{8}{3}$ miles, how many miles did Macy walk?



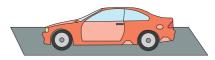
4) Dave and Sam take a tour of a chocolate factory in Hershey, PA. Dave bought $\frac{11}{20}$ pounds of chocolate and Sam purchased $\frac{7}{10}$ pounds of chocolates. How many more pounds of chocolate did Sam purchase than Dave?



5) Amelia took an online practice test and attempted two-thirds of the total number of questions. If one-sixth of the questions attempted were incorrect, what fraction of questions did she get right?

Multiplying Fractions

1) Adam needs to drive a distance of 372 miles to New York to attend a seminar. He stops over to grab a quick bite after he covers one-third the total distance. How many more miles does Adam need to ride to reach his destination?



Caleb's vegetable garden yielded $23\frac{1}{2}$ pounds of bell peppers. He gave two-thirds of the total yield to his neighbor, Jacob. How many pounds of bell peppers did Jacob receive?

3) The Valley High School printed 445 tickets for the school play in Spring. Three-fifth of tickets were sold out by January. How many tickets remain to be sold?



4) Lilian, a teenager, earned \$585 in a fortnight by babysitting for her friends and family. She spent $\frac{5}{9}$ th of the money earned to buy a laptop. How much money is Lilian left with?

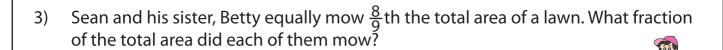
5) Abigail has lovely, lustrous black hair that is 32 inches long. She asks the hairdresser to cut off one-fourth the total length of her hair. How long will Abigail's hair measure after the haircut?

Dividing Fractions

1) A glass pitcher holds $6\frac{1}{3}$ cups of pineapple juice. Tracy transfers the juice in equal amounts into 3 bottles. How many cups of juice will each bottle contain?



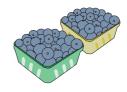
2) A recipe calls for quarter of a cup of sugar to make a chocolate mug brownie. How many mugs of brownies can be made with $1\frac{3}{4}$ cups of sugar?



Jane eats two-thirds of a cup of cereal every day for breakfast. If the box contains a total of 24 cups, how many days will Jane take to finish the cereal box?



5) Lucy bought $9\frac{1}{3}$ pounds of blueberries from the farmer's market and placed them in equal quantities in 7 bags. How many pounds of blueberries does each bag hold?



4)