Worksheet #5



## **Fractions Word Problems**

Learning Goal: Students will be able to get an understanding of an introduction level word problems on fractions.

A factory produces 200 machines, one-eighth are defective. Find the fraction of working machines.

Out of 75 chairs in an auditorium, 45 are wood, and the rest are silver. Find the fraction of steel chairs.

Out of 500 notebooks, 200 are spiral-bound, and the rest are regular. Find the fraction of regular notebooks.

A stadium has 10,000 seats, 4,000 are VIP, 5,000 are general, and the rest are reserved. Find the fraction of reserved seats.

# SCRIBBRE SPACE

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## SCRIBBASE SPACE

A railway station has 10 express trains, 15 passenger trains, and 5 freight trains. Find the fraction of freight trains.

A restaurant serves 90 dishes. A few are vegetarian, 40 are chicken dishes, and 20 are seafood dishes. Find the fraction of vegetarian dishes.

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A movie theater has 350 seats. Some are VIP seats, 150 are standard seats, and 120 are economy seats. Find the fraction of VIP seats.

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An airport handles 900 passengers daily. two-fifth of them are international travelers, one-sixth are domestic business travelers, and the rest are leisure travelers. Find the fraction of leisure travelers.

### Worksheet #5



## **Fractions Word Problems**

Learning Goal: Students will be able to get an understanding of an introduction level word problems on fractions.

A factory produces 200 machines, one-eighth are defective. Find the fraction of working machines.

Solution: Total machines = 200

**defective=**  $\frac{1}{8} \times 200 = 25$ 

Non-defective = 200 -25 = 175

Fraction of working machines=  $\frac{175}{200} = \frac{7}{8}$ 

Out of 75 chairs in an auditorium, 45 are wood, and the rest are silver. Find the fraction of steel chairs.

Solution:

Total chairs= 75

Number of steel chairs = 30

Fraction of steel chairs  $\frac{30}{75} = \frac{6}{15} = \frac{2}{5}$ 

Out of 500 notebooks, 200 are spiral-bound, and the rest are regular. Find the fraction of regular notebooks.

Solution:

Total notebooks= 200

Number of regular notebooks =300

Fraction of regular notebooks=  $\frac{300}{500} = \frac{3}{5}$ 

A stadium has 10,000 seats, 4,000 are VIP, 5,000 are general, and the rest are reserved. Find the fraction of reserved seats.

Solution:

Total seats= 10,000

Reserved seats =10,000-9000 =1000

Fraction of reserved seats=  $\frac{1000}{10000} = \frac{1}{10}$ 

# SCRIBBALE SPACE

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### SCRIBBASE SPACE

A railway station has 10 express trains, 15 passenger trains, and 5 freight trains. Find the fraction of freight trains.

### Solution:

Total trains= 10+15+5 = 30

Number of freight trains= 5

fraction of freight trains= $\frac{5}{30}=\frac{1}{6}$ 

A restaurant serves 90 dishes. A few are vegetarian, 40 are chicken dishes, and 20 are seafood dishes. Find the fraction of vegetarian dishes.

### **Solution:**

Total dishes = 90

Number of vegetarians dishes= 90-(40+20)=30

fraction of vegetarians dishes  $\frac{30}{90} = \frac{1}{3}$ 



A movie theater has 350 seats. Some are VIP seats, 150 are standard seats, and 120 are economy seats. Find the fraction of VIP seats.

#### Solution:

Total seats = 350

Number of VIP seats =350-(150+120)=80

Fraction of VIP seats=  $\frac{80}{350} = \frac{8}{35}$ 

An airport handles 900 passengers daily. two-fifth of them are international travelers, one-sixth are domestic business travelers, and the rest are leisure travelers. Find the fraction of leisure travelers.

Solution:

International =  $\frac{2}{5} \times 900 = 360$ 

**Domestic Business =**  $\frac{1}{6} \times 900 = 150$ 

Leisure = 900-(360+150)=390

Fraction of leisure travelers =  $rac{390}{900} = rac{13}{30}$