16

Percentages

Objective :

Concept of percentage is brought out through the number of fatal accidents.

Content :

In 2009, a total of 7516 accidents were recorded in which 2325 persons lost their lives and 6936 were injured. Calculate percentage of total road accident victims who killed. Of fatal accidents, 1170 pedestrians and 2677 were injured. Calculate percentage of pedestrians-

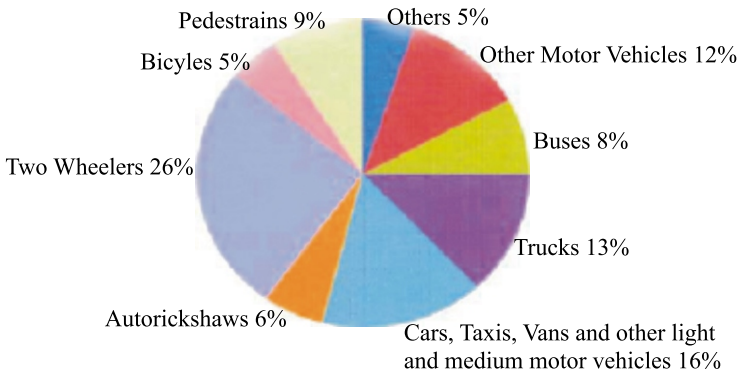
(a) Killed (b) Injured

Pedestrians are the most vulnerable road users. Can you suggest some measures of safety for them? 2-wheeler drivers accounted for 691 of all those killed and 2358 of all the injured victims in 2009. Calculate percentage of two-wheeler killed and injured. Can you suggest some measures of road safety for these drivers?

In 2009, 1993 males were killed and 158 females were killed. By what percentage are more males killed. If 174 children were killed, what is the percentage of children who have lost their lives on Delhi Roads?

Activity :

Profile of people killed on roads in detail is given in the form of a pie chart.



1. Express each percentage in decimal form.
2. If 1,33,938 persons were killed, calculate how many pedestrians were killed?

Circles

Objective :

Circular road signs give order. Identification of common circular road signs.

Content :

You have already studied that -

- Triangles warn
- Rectangles inform

Now we study about a circle. A circular traffic sign gives us order.

Blue circle gives a positive instruction. Draw one such traffic sign.

Red circle gives a negative instruction. Draw one such traffic sign.

Find out two traffic sign which do not follow these rules.

Activity :

Locate all the traffic signs in your locality. Find out what percentage of the traffic signs give order.

Statistics

Objective :

Circular road signs give order. Identification of common circular road sings.

Content :

Bar graphs are pictorial representation of numerical data.

Exercise :

The data of various vehicles for the year 1980 and 1990 in percentage is given below:

Vehicle	1980	1990
Private Car	22.48	21.74
Motor Cycle/Scooter	64.13	67.50
Taxi	1.20	0.58
MCR/TSR	3.82	3.51
Goods Vehicles	6.85	5.61
Buses	1.52	1.06

Draw a bar graph of the above data.

1. Compare the percentage of taxis in the year 1980 and 1920.
2. What is the difference in the percentage of private cars and taxis in the year 1990?

Quadrilaterals

Objective :

Using road signs to determine the area of quadrilaterals.

Content :

Students are introduced to the tropic quadrilaterals in which they can differentiate between a square, a rectangle, a parallelogram, a rhombus etc. traffic signs are in various shapes.

Size of rectangle is 20 inches x 18 inches.

Q 1. Find the cost of making two rectangular boards @ ₹10 per square inch.

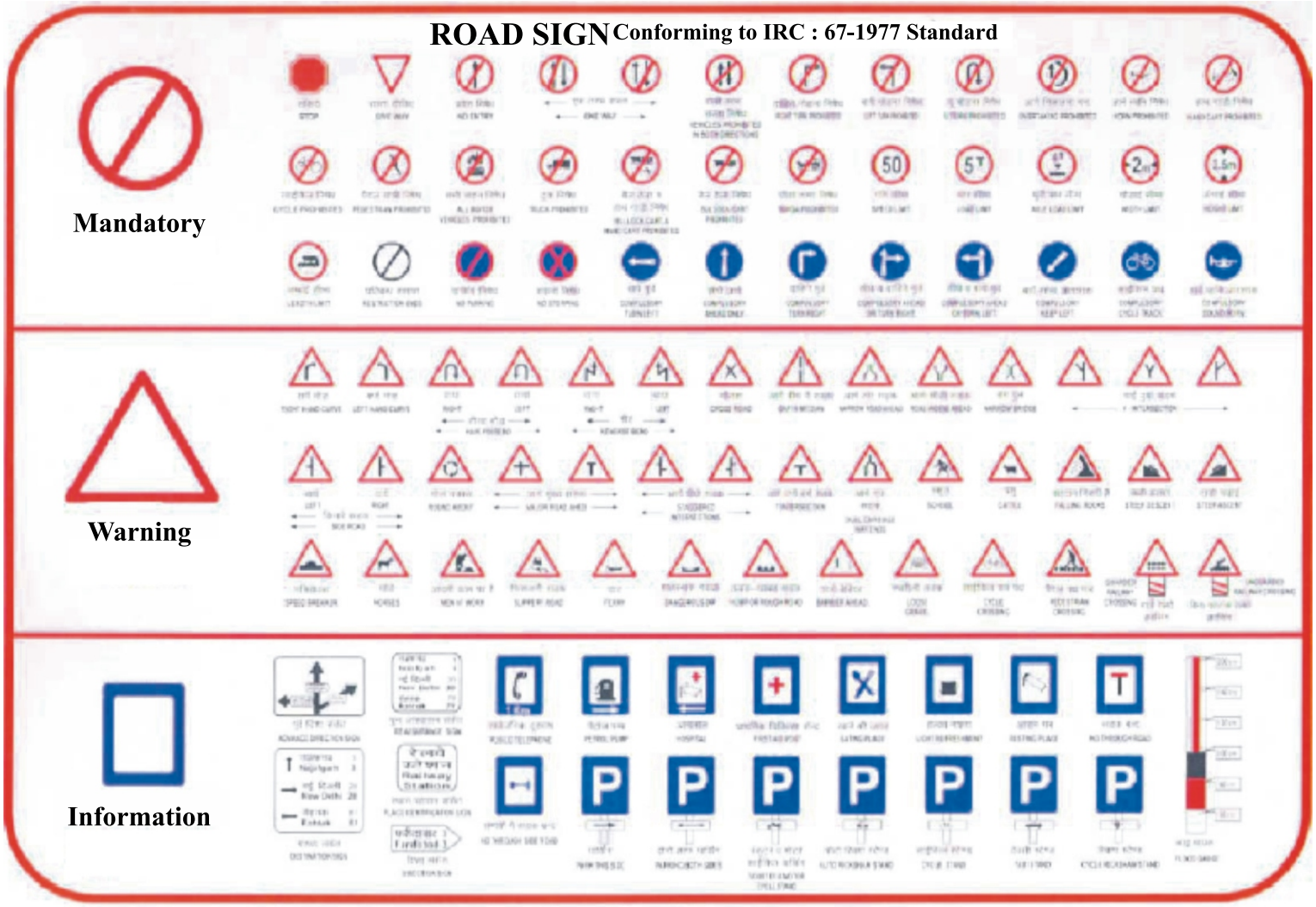
An informatory sign board, rectangular in shape, blue in colour is given below.

Q 2. It has a while square with Red Cross in it. Rectangle is 30"x25"and square is 20"x20". Find the area of blue region.

Activity :

Visit any traffic training institute and look at the board which show traffic signs of all shapes.

Draw these signs on a chart paper and state which of them are squares and which are rectangles. Also state which of them are parallelograms?


ROAD SIGN Conforming to IRC : 67-1977 Standard
Mandatory
Warning
Information

Probability

Objective :

Children will be given the knowledge of probability.

P(e) = number of favourable outcomes/total outcomes

Exercise :

Traffic lights remains green, orange or red for 90 seconds on a busy road crossing. Suresh, while travelling to his office noted that sometimes the traffic signal was red, sometimes green and sometimes orange. He noted this for 10 days are found the following:

SINGLE	RED	ORANGE	GREEN
10	3	3	4

Q 1. Find the probability of Suresh getting:

1. Green light
2. Red light at red light crossing

Q 2. What is the sequence of traffic lights?

Data

Laws and regulations help us to be aware of the road safety system. A specific eligibility of 18 years is given for obtaining a licence and children should not break this law. Over 500 minors were prosecuted in 2009. Find out how many students drive in your class. What is the fraction of the students driving to the overall strength of the class? Compare it with students of other sections and make a bar graph.

The fine for underage driving is Rs. 300 and if a minor is caught driving a vehicle, the owner of the vehicle can be fined an amount of Rs. 1,000. If an underage driver causes any accident, he can be looked under IPC 304 A or IPC 337, and can be sent to juvenile home.

Seat belts help a driver to lead a safe and secure life. 2,55,686 persons were prosecuted for not wearing a helmet in Delhi. **Find out penalty for this violation. What is total challan collected for this offence this year?**

11,084 persons were prosecuted foe not wearing a seat belt in Delhi. **Find out the penalty for this violation. What is the total challan collected for this offence this year?**

Section 177 of Motor Vehicle Act can punish a driver who is not wearing seatbelt with a fine upto Rs. 100.

Drunken driving is a major cause of fatal accidents. 8296 people were prosecuted in 2008 but 12,784 in 2009 in Delhi. **Find out increase in the number of such cases.**

Section 185 of Motor Vehicle Act can punish a driver under the influence of alcohol with a fine upto Rs. 2000 or imprisonment with a term which may extend upto 6 months. With a subsequent offence within 3 years, imprisonment increases to 2 years and a fine of Rs. 3,000.