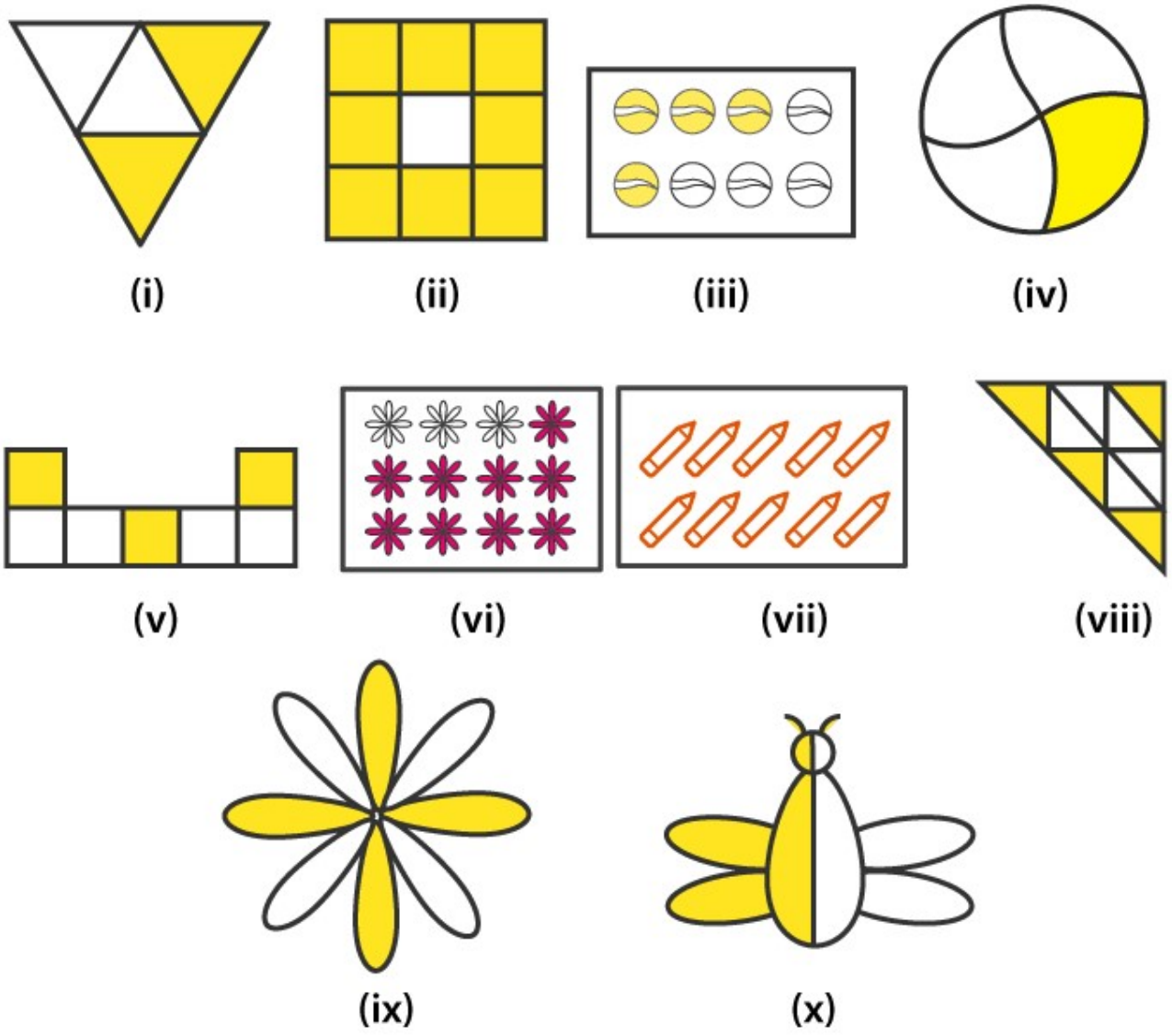
CHAPTER 6

FRACTIONS

1. Write the fraction representing the shaded portion.



Solutions:

(i) Number of parts = 4

Shaded portion = 2

∴ Fraction = 2 / 4

(ii) Number of parts = 9

Shaded portion = 8

∴ Fraction = 8 / 9

(iii) Number of parts = 8

Shaded portion = 4

∴ Fraction = 4 / 8

(iv) Number of parts = 4

Shaded portion = 1

∴ Fraction = 1 / 4

(v) Number of parts = 7

Shaded portion = 3

∴ Fraction = 3 / 7

(vi) Number of parts = 12

Shaded portion = 3

∴ Fraction = 3 / 12

(vii) Number of parts = 10

Shaded portion = 10

∴ Fraction = 10 / 10

(viii) Number of parts = 9

Shaded portion = 4

∴ Fraction = 4 / 9

(ix) Number of parts = 8

Shaded portion = 4

∴ Fraction = 4 / 8

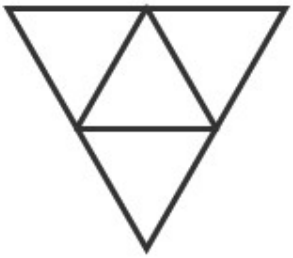
(x) Number of parts = 2

Shaded portion = 1

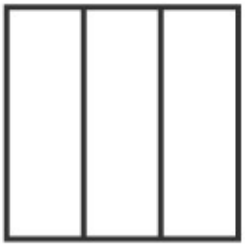
∴ Fraction = 1 / 2

2. Colour the part according to the given fraction.

(i) $\frac{1}{6}$

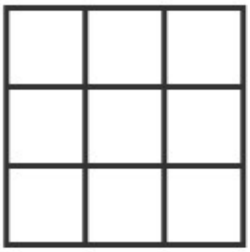


(ii) $\frac{1}{4}$



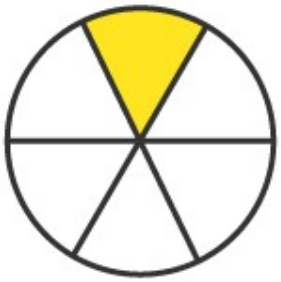
(iii) $\frac{1}{3}$

(iv) $\frac{3}{4}$

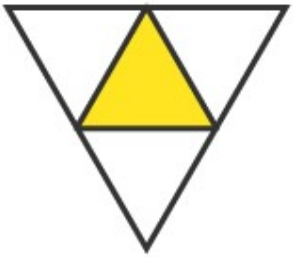


(v) $\frac{4}{9}$

Solutions:

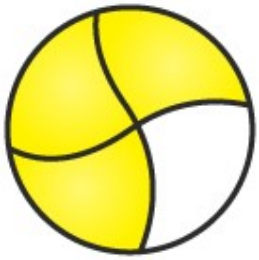


(i) $\frac{1}{6}$

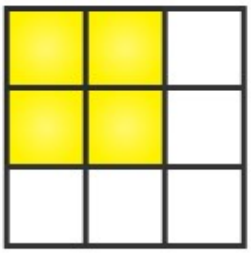


(ii) $\frac{1}{4}$

(iii) $\frac{1}{3}$

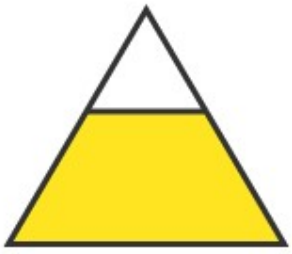


(iv) $\frac{3}{4}$



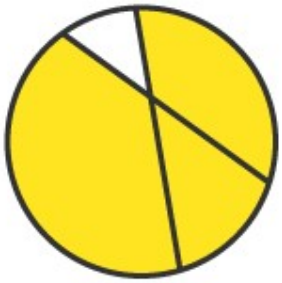
(v) $\frac{4}{9}$

3. Identify the error, if any.



This is $\frac{1}{2}$

This is $\frac{1}{4}$



This is $\frac{3}{4}$

Solutions:

(i) The shaded portion is not half

Hence, this is not 1 / 2

(ii) Since the parts are not equal

∴ Shaded portion is not 1 / 4

(iii) Since the parts are not equal

∴ Shaded portion is not 3 / 4

4. What fraction of a day is 8 hours?

Solutions:

There are 24 hours in a day

We have 8 hours

Hence, required fraction is 8 / 24

5. What fraction of an hour is 40 minutes?

Solutions:

There are 60 minutes in 1 hour

∴ 1 hour = 60 minutes

Hence, required Fraction = 40 / 60

6. Arya, Abhimanyu, and Vivek shared lunch. Arya has brought two sandwiches, one made of vegetable and one of jam. The other two boys forgot to bring their lunch. Arya agreed to share his sandwiches so that each person will have an equal share of each sandwich.

(a) How can Arya divide his sandwiches so that each person has an equal share?

(b) What part of a sandwich will each boy receive?

Solutions:

(a) Arya has divided the sandwich into 3 equal parts. So each person will get one part.

(b) Each boy receive 1 / 3 part

∴ Required Fraction is 1 / 3

7. Kanchan dyes dresses. She had to dye 30 dresses. She has so far finished 20 dresses. What fraction of dresses has she finished?

Solutions:

Total number of dresses Kanchan has to dye = 30 dresses

Number of dresses she has finished = 20 dresses

∴ Required Fraction = 20 / 30 = 2 / 3

8. Write the natural numbers from 2 to 12. What fraction of them are prime numbers?

Solutions:

Natural numbers from 2 to 12 are

2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Total number of natural numbers given= 11

Number of prime numbers = 5

∴ Required Fraction = 5 / 11

9. Write the natural numbers from 102 to 113. What fraction of them are prime numbers?

Solutions:

Natural numbers from 102 to 113 are

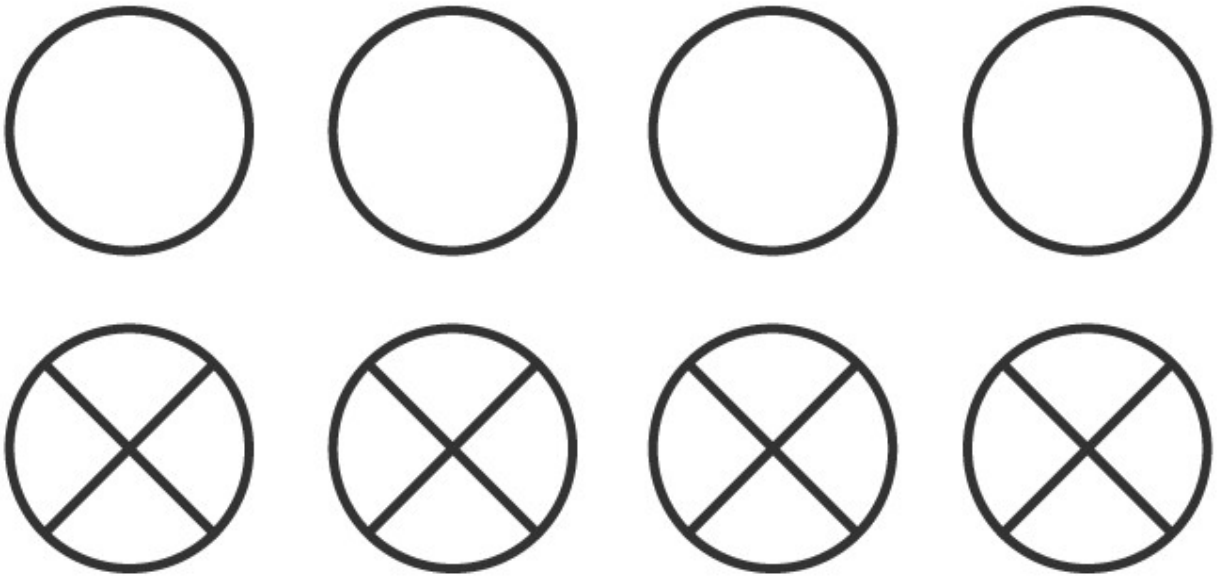
102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113

Total number of natural numbers given = 12

Number of prime numbers = 4 [103, 107, 109, 113]

∴ Required Fraction = 4 / 12 = 1 / 3

10. What fraction of these circles have Xs in them?



Solutions:

Total number of circles in the figure = 8

Number of circles having Xs in them = 4

∴ Required Fraction = 4 / 8 = 1 / 2