

**EXERCISE 4.4**

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**1. Write each of the following rational numbers in the standard form:**

(i)  $(2/10)$

(ii)  $(-8/36)$

(iii)  $(4/-16)$

(iv)  $(-15/-35)$

(v)  $(299/-161)$

(vi)  $(-63/-210)$

(vii)  $(68/-119)$

(viii)  $(-195/275)$

**Solution:**

(i) Given  $(2/10)$

We know that HCF of 2 and 10 is 2

Now dividing the numerator and denominator by HCF i.e. 2, we get:

$$(2/10) \div (2/2) = (1/5)$$

Therefore  $(1/5)$  is the standard form of given number

(ii) Given  $(-8/36)$

We know that HCF of 8 and 36 is 4

Now dividing the numerator and denominator by HCF i.e. 4, we get:

$$(-8/36) \div (4/4) = (-2/9)$$

Therefore  $(-2/9)$  is the standard form of given number

(iii) Given  $(4/-16)$

Here denominator is negative so we have multiply both numerator and denominator by -1

$$(4/-16) \times (-1/-1) = (-4/16)$$

We know that HCF of 4 and 16 is 4

Now dividing the numerator and denominator by HCF i.e. 4, we get:

$$(-4/16) \div (4/4) = (-1/4)$$

Therefore  $(-1/4)$  is the standard form of given number

(iv) Given  $(-15/-35)$

Here denominator is negative so we have multiply both numerator and denominator by -1

$$(-15/-35) \times (-1/-1) = (15/35)$$

We know that HCF of 15 and 35 is 5

Now dividing the numerator and denominator by HCF i.e. 5, we get:

$$(15/35) \div (5/5) = (3/7)$$

Therefore  $(3/7)$  is the standard form of given number

(v) Given  $(299/-161)$

Here denominator is negative so we have multiply both numerator and denominator by -1

$$(299/-161) \times (-1/-1) = (-299/161)$$

The HCF of 299 and 161 is 23

Now dividing the numerator and denominator by HCF i.e. 23, we get:

$$(-299/161) \div (23/23) = (-13/7)$$

Therefore  $(-13/7)$  is the standard form of given number

(vi) Given  $(-63/-210)$

The HCF of 63 and 210 is 21

Now dividing the numerator and denominator by HCF i.e. 21, we get:

$$(-63/-210) \div (21/21) = (-3/-10) = (3/10)$$

Therefore  $(3/10)$  is the standard form of given number

(vii) Given  $(68/-119)$

Here denominator is negative so we have multiply both numerator and denominator by -1

$$(68/-119) \times (-1/-1) = (-68/119)$$

The HCF of 68 and 119 is 17

Now dividing the numerator and denominator by HCF i.e. 17, we get:

$$(-68/119) \div (17/17) = (-4/7)$$

Therefore  $(-4/7)$  is the standard form of given number

(viii) Given  $(-195/275)$

The HCF of 195 and 275 is 5

Now dividing the numerator and denominator by HCF i.e. 5, we get:

$$(-195/275) \div (5/5) = (-39/55)$$

Therefore  $(-39/55)$  is the standard form of given number