RD Sharma Solutions for Class-9
RD Sharma solutions for chapter 1

RD Sharma Solutions for Chapter 1 - Number System

Exercise-1.2

1. Solution:

(i) By long division method

```
100) 42̄( 0.42
     400
     ‾‾‾
     200
     200
     ‾
     0̄
```

Terefore, 42/100 = 0.42

(ii) By long division method

```
500)327.000 ( 0.654
    3000
    ‾‾‾‾
    2700
    2500
    ‾‾‾‾
    2000
    2000
    ‾
    0̄
```

Therefore, 327/500 = 0.654

(ii) By long division method

```
4) 15.00 ( 3.75
   12
   ‾‾‾
   30
   28
   ‾‾‾
   20
   20
   ‾‾‾
    0
```

Therefore, 15/4 = 3.75

2. Solution:

(i) By long division method

```
3) 2.0000 ( 0.66
   18
   ‾‾‾
   20
   18
   ‾‾‾
    2
```

Therefore, 2/3 = 0.6

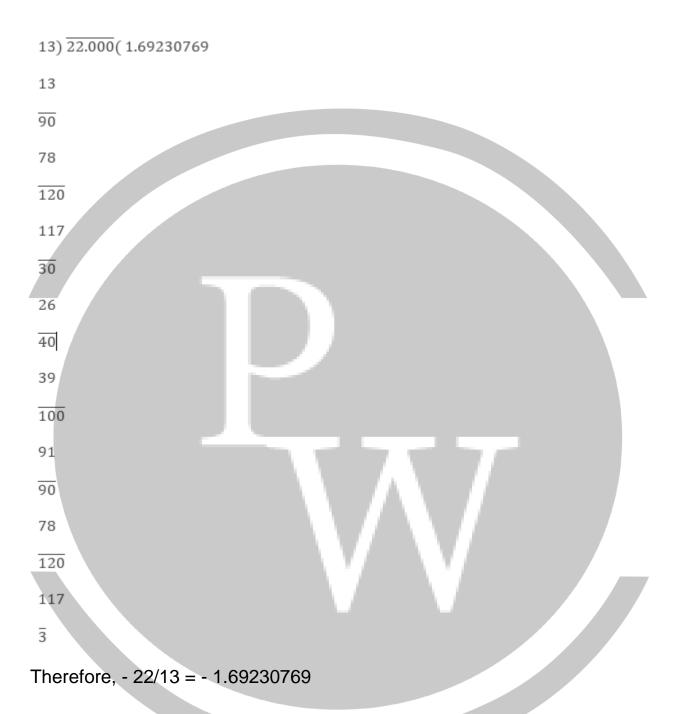(ii) By long division method

```
        _____
9) 4.000 ( 0.444
   3600
   _____
   4000
   3600
   _____
   4000
   3600
   _____
   400
```

Therefore, - 4/9 = - 0.444

(iii) By long division method

```
15) 2.00( 1.333
    15
    ──
    50
    45
    ──
    50
    45
    ──
    50
    45
    ──
    5̄
```

Therefore, 2/15 = -1.333

(iv) By long division method

13) $\overline{22.000}$(1.69230769

13

$\overline{90}$

78

$\overline{120}$

117

$\overline{30}$

26

$\overline{40}$

39

$\overline{100}$

91

$\overline{90}$

78

$\overline{120}$

117

$\overline{3}$

Therefore, - 22/13 = - 1.69230769

(v) By long division method

```
999) 437.0000( 0.43743
     3996
     ―――――
     3740
     2997
     ―――――
     7430
     6993
     ―――――
     4370
     3996
     ―――――
     3740
     2997
     ―――――
     743
```

Therefore, 437/999 = 0.43743

3. Solution:

The property is if the denominators have factors 2 or 5 or both, the decimal representation will be terminating e.g.

$\frac{1}{2}$ = 0.5, $\frac{1}{4}$ = 0.25, $\frac{1}{5}$ = 0.2,

$\frac{1}{10}$ = 0.1, $\frac{1}{20}$ = 0.5, $\frac{3}{8}$ = 0.125,

$\frac{3}{40}$ = 0.075 etc.