**program** Fraction\_Simplification;

**var** numerator, denominator, hcf: integer

option: char

positive, found\_hcf: boolean

**procedure** Initialisation

**begin**

write =====================

||Simplify Fraction||

=====================

numerator := 0

denominator := 0

hcf := 1

**end;**

**procedure** Input\_Fraction

**begin**

Input numerator

Input denominator

**if** numerator\*denominator >=0 **then** postive := true

Set numerator and denominator to its absolute value

**end;**

**procedure** Find\_HCF

**var** i, d:integer

found := false

**begin**

compare denominator and numerator and set the smaller one as d

i := d

**repeat**

**if** numerator **mod** i = 0 **and** denominator **mod** i = 0

**then** hcf := i

found := true

**else** i := i - 1

**until** found = true **or** i <= 1

**end;**

**procedure** Simply\_Fraction

**var** mixed :integer

**begin**

**if** hcs <> 1 **then** numerator := numerator **div** hcf

denominator := denominator **div** hcf

Display -ve sign before fraction if positive := false

**if** denominator <= numerator

**then**

**if** numerator **mod** denominator = 0

**then**

Display -ve sign before fraction if positive := false

**else**

mixed := numerator **div** denominator

numerator := numerator **mod** denominator

Display -ve sign before fraction if positive := false

**end;**

**procedure** Close\_Prompt

**begin**

Input option

**end;**

**begin**

**repeat**

Initialisation;

Input\_Fraction;

Find\_HCF;

Simply\_Fraction;

Close\_Prompt;

**until** (option = 'N') or (option = 'n');

**end.**