Alpha University
Faculty of Social work
Assignment
Name Abdiqani Abdilahi Mohamed
ID 692

To simplify the ratio 12:16:

Find the greatest common divisor (GCD) of 12 and 16.

GCD of 12 and 16 is

4

.

Divide both terms by the GCD:

12 ÷ 4 = 3

16 ÷ 4 = 4

Add the parts of the ratio:

2 + 3 =

5 parts

Find the value of one part:

$120 ÷ 5 =

$24

Multiply each part:

2 parts = 2 × $24 =

$48

3 parts = 3 × $24 =

$72

The 7 parts in the ratio correspond to 28 dogs:

28 ÷ 7 =

4

(value of one part)

Multiply by the number of cat parts (4):

4 × 4 =

16 cats

Divide total earnings by total hours worked:

$240 ÷ 8 hours =

$30 per hour

Simplify both ratios:

6:9 ? divide both by 3 ?

2:3

8:12 ? divide both by 4 ?

2:3

Since both simplify to

2:3

, they

are proportional

.

$45 ÷ 3 =

$15 per shirt

$15 × 5 =

$75

$10 ÷ 5 =

$2 per pen

$2 × 12 =

$24

GCD of 18 and 30 is

6

18 ÷ 6 = 3

30 ÷ 6 = 5

25% = 25 ÷ 100 = 0.25

0.25 × 480 =

120

80% of x = $150

0.80 × x = 150

x = 150 ÷ 0.80

x =

$187.50

5% = 5 ÷ 100 = 0.05

0.05 × 2,000 =

$100

P=1200P = 1200

P

=

1200

(principal amount),

R=5%R = 5\%

R

=

5%

(rate per annum),

T=3T = 3

T

=

3

years (time).

P=2000P = 2000

P

=

2000

(principal),

R=10%R = 10\%

R

=

10%

(rate per annum),

T=3T = 3

T

=

3

years (time).

PP

P

is the principal amount (loan),

RR

R

is the rate of interest per annum,

TT

T

is the time period in years.

P=2000P = 2000

P

=

2000

,

R=6%R = 6\%

R

=

6%

,

T=2T = 2

T

=

2

years,