

# **Multiplication and Division with Directed numbers**

Calculation in a pair: We have to do sign operation and operation of number.

Sign operation: Multiplication and division of sign is given below.

$$\begin{array}{l} - \times - = + \\ - \times + = - \\ + \times - = - \\ + \times + = + \end{array} \quad \text{( Division of sign is same as multiplication , i.e., } - \div + = - \text{ )}$$

Operation of numbers: Do according to the sign,

Example

i)  $25 \div (-5) = -5$

Sign:  $+$   $\div$   $- = -$  (Our answer will be -ve)

Number:  $25 \div 5 = 5$

ii)  $-7 \times (-3) = +21$

Sign:  $- \times - = +$

Number:  $7 \times 3 = 21$

iii)  $-7 - (-3)$

$= -7 + 3$

$= -4$

(First we multiply the sign  $- \times - = +$ )

(Calculation in the pair)

1) Multiply the following numbers

a)  $36 \times (-5)$

$=$  \_\_\_\_\_

b)  $-75 \times 7$

$=$  \_\_\_\_\_

c)  $28 \times (-7)$

$=$  \_\_\_\_\_

d)  $67 \times 9$

$=$  \_\_\_\_\_

e)  $-5 \times (-3)$

$=$  \_\_\_\_\_

f)  $47 \times (-12)$

$=$  \_\_\_\_\_

g)  $26 \times (-75)$

$=$  \_\_\_\_\_

h)  $-27 \times (-5)$

$=$  \_\_\_\_\_

i)  $-24 \times 63$

$=$  \_\_\_\_\_

2) Divide

a)  $27 \div (-3) =$  \_\_\_\_\_

b)  $-42 \div 6 =$  \_\_\_\_\_

c)  $-80 \div (-8) =$  \_\_\_\_\_

d)  $35 \div 5 =$  \_\_\_\_\_

e)  $-15 \div 3 =$  \_\_\_\_\_

f)  $-63 \div (9) =$  \_\_\_\_\_

g)  $28 \div (-7) =$  \_\_\_\_\_

h)  $-60 \div 12 =$  \_\_\_\_\_

i)  $-78 \div (-2) =$  \_\_\_\_\_

3) Simplify

a)  $5 - (-7)$

$=$  \_\_\_\_\_

b)  $-8 + (-7)$

$=$  \_\_\_\_\_

c)  $7 + (-8)$

$=$  \_\_\_\_\_

d)  $24 - (+14)$

$=$  \_\_\_\_\_

e)  $-36 - (-9)$

$=$  \_\_\_\_\_

f)  $75 - (-3)$

$=$  \_\_\_\_\_