

EXERCISE 1B

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**1. Divide:**

(i) 117 by 9

(ii) (-117) by 9

(iii) 117 by (-9)

(iv) (-117) by (-9)

(v) 225 by (-15)

(vi) (-552) ÷ 24

(vii) (-798) by (-21)

(viii) (-910) ÷ 26

**Solution:**

(i) 117 by 9

$$= 117/9$$

It can be written as

$$= (13 \times 9)/9$$

$$= 13$$

(ii) (-117) by 9

$$= -117/9$$

It can be written as

$$= (-13 \times 9)/9$$

$$= -13$$

(iii) 117 by (-9)

$$= 117/-9$$

It can be written as

$$= (13 \times 9)/-9$$

$$= -13$$

(iv) (-117) by (-9)

$$= -117/-9 = 117/9$$

It can be written as

$$= (13 \times 9)/9$$

$$= 13$$

(v) 225 by (-15)

$$= 225/(-15)$$

It can be written as

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

$$= -15$$

(vi) (-552) ÷ 24

$$= -552/24$$

It can be written as

$$= (-23 \times 24)/24$$

$$= -23$$

(vii) (-798) by (-21)

$$= -798 / -21 = 798/21$$

It can be written as

$$= (38 \times 21) / 21$$

$$= 38$$

$$(viii) (-910) \div 26$$

$$= -910 / 26$$

It can be written as

$$= (-35 \times 26) / 26$$

$$= -35$$

## 2. Evaluate:

(i)  $(-234) \div 13$

(ii)  $234 \div (-13)$

(iii)  $(-234) \div (-13)$

(iv)  $374 \div (-17)$

(v)  $(-374) \div 17$

(vi)  $(-374) \div (-17)$

(vii)  $(-728) \div 14$

(viii)  $272 \div (-17)$

**Solution:**

(i)  $(-234) \div 13$

$$= -234 / 13$$

It can be written as

$$= (-18 \times 13) / 13$$

$$= -18$$

(ii)  $234 \div (-13)$

$$= 234 / -13$$

It can be written as

$$= (18 \times 13) / -13$$

$$= -18$$

(iii)  $(-234) \div (-13)$

$$= -234 / -13 = 234/13$$

It can be written as

$$= (18 \times 13) / 13$$

$$= 18$$

(iv)  $374 \div (-17)$

$$= 374 / -17$$

It can be written as

$$= (22 \times 17) / (-17)$$

$$= -22$$

(v)  $(-374) \div 17$

$$= -374 / 17$$

It can be written as

$$= (-22 \times 17) / (17)$$

$$= -22$$

$$\begin{aligned} & \text{(vi) } (-374) \div (-17) \\ &= -374 / -17 = 374/17 \\ & \text{It can be written as} \\ &= (22 \times 17) / (17) \\ &= 22 \end{aligned}$$

$$\begin{aligned} & \text{(vii) } (-728) \div 14 \\ &= -728/14 \\ & \text{It can be written as} \\ &= (-52 \times 14) / 14 \\ &= -52 \end{aligned}$$

$$\begin{aligned} & \text{(viii) } 272 \div (-17) \\ &= 272 / -17 \\ & \text{It can be written as} \\ &= (16 \times 17) / (-17) \\ &= -16 \end{aligned}$$

**3. Find the quotient in each of the following divisions:**

**(i)  $299 \div 23$**

**(ii)  $299 \div (-23)$**

**(iii)  $(-384) \div 16$**

**(iv)  $(-572) \div (-22)$**

**(v)  $408 \div (-17)$**

**Solution:**

$$\begin{aligned} & \text{(i) } 299 \div 23 \\ &= 299/23 \\ & \text{It can be written as} \\ &= (23 \times 13) / 23 \\ &= 13 \end{aligned}$$

$$\begin{aligned} & \text{(ii) } 299 \div (-23) \\ &= 299 / -23 \\ & \text{It can be written as} \\ &= (23 \times 13) / -23 \\ &= -13 \end{aligned}$$

$$\begin{aligned} & \text{(iii) } (-384) \div 16 \\ &= -384/16 \\ & \text{It can be written as} \\ &= (-24 \times 16) / 16 \\ &= -24 \end{aligned}$$

$$\begin{aligned} & \text{(iv) } (-572) \div (-22) \\ &= -572 / -22 = 572/22 \\ & \text{It can be written as} \\ &= (26 \times 22) / 22 \end{aligned}$$

$$= 26$$

$$(v) 408 \div (-17)$$

$$= 408 / -17$$

It can be written as

$$= (24 \times 17) / (-17)$$

$$= -24$$

#### 4. Divide:

(i) 204 by 17

(ii) 152 by -19

(iii) 0 by 35

(iv) 0 by (-82)

(v) 5490 by 10

(vi) 762800 by 100

**Solution:**

(i) 204 by 17

$$= 204 / 17$$

It can be written as

$$= (12 \times 17) / 17$$

$$= 12$$

(ii) 152 by -19

$$= 152 / -19$$

It can be written as

$$= (8 \times 19) / -19$$

$$= -8$$

(iii) 0 by 35

$$= 0 / 35$$

$$= 0$$

(iv) 0 by (-82)

$$= 0 / -82$$

$$= 0$$

(v) 5490 by 10

$$= 5490 / 10$$

It can be written as

$$= (549 \times 10) / 10$$

$$= 549$$

(vi) 762800 by 100

$$= 762800 / 100$$

It can be written as

$$= 7628$$

#### 5. State, true or false:

(i)  $0 \div 32 = 0$

- (ii)  $0 \div (-9) = 0$   
(iii)  $(-37) \div 0 = 0$   
(iv)  $0 \div 0 = 0$

**Solution:**

- (i) True.  
(ii) True.  
(iii) False. It is not defined.  
(iv) False. It is not defined.

**6. Evaluate:**

- (i)  $42 \div 7 + 4$   
(ii)  $12 + 18 \div 3$   
(iii)  $19 - 20 \div 4$   
(iv)  $16 - 5 \times 3 + 4$   
(v)  $6 - 8 - (-6) \div 2$   
(vi)  $13 - 12 \div 4 \times 2$   
(vii)  $16 + 8 \div 4 - 2 \times 3$   
(viii)  $16 \div 8 + 4 - 2 \times 3$   
(ix)  $16 - 8 + 4 \div 2 \times 3$   
(x)  $(-4) + (-12) \div (-6)$   
(xi)  $(-18) + 6 \div 3 + 5$   
(xii)  $(-20) \times (-1) + 14 \div 7$

**Solution:**

(i)  $42 \div 7 + 4$   
It can be written as  
 $= 42/7 + 4$   
By further calculation  
 $= 6 + 4$   
 $= 10$

(ii)  $12 + 18 \div 3$   
It can be written as  
 $= 12 + 18/3$   
By further calculation  
 $= 12 + 6$   
 $= 18$

(iii)  $19 - 20 \div 4$   
It can be written as  
 $= 19 - 20/4$   
By further calculation  
 $= 19 - 5$   
 $= 14$

(iv)  $16 - 5 \times 3 + 4$

It can be written as  
 $= 16 - 15 + 4$   
By further calculation  
 $= 20 - 15$   
 $= 5$

(v)  $6 - 8 - (-6) \div 2$   
It can be written as  
 $= 6 - 8 - (-6/2)$   
By further calculation  
 $= 6 - 8 - (-3)$   
So we get  
 $= 6 - 8 + 3$   
 $= 9 - 8$   
 $= 1$

(vi)  $13 - 12 \div 4 \times 2$   
It can be written as  
 $= 13 - 12/4 \times 2$   
By further calculation  
 $= 13 - 3 \times 2$   
 $= 13 - 6$   
 $= 7$

(vii)  $16 + 8 \div 4 - 2 \times 3$   
It can be written as  
 $= 16 + 8/4 - 2 \times 3$   
By further calculation  
 $= 16 + 2 - 2 \times 3$   
So we get  
 $= 16 + 2 - 6$   
 $= 18 - 6$   
 $= 12$

(viii)  $16 \div 8 + 4 - 2 \times 3$   
It can be written as  
 $= 16/8 + 4 - 2 \times 3$   
By further calculation  
 $= 2 + 4 - 6$   
So we get  
 $= 6 - 6$   
 $= 0$

(ix)  $16 - 8 + 4 \div 2 \times 3$   
It can be written as  
 $= 16 - 8 + 4/2 \times 3$   
By further calculation  
 $= 16 - 8 + 2 \times 3$   
So we get  
 $= 16 - 8 + 6$

Here  
 $= 22 - 8$   
 $= 14$

(x)  $(-4) + (-12) \div (-6)$   
It can be written as  
 $= (-4) + (-12/-6)$   
By further calculation  
 $= -4 + 2$   
 $= -2$

(xi)  $(-18) + 6 \div 3 + 5$   
It can be written as  
 $= (-18) + 6/3 + 5$   
By further calculation  
 $= (-18) + 2 + 5$   
So we get  
 $= -18 + 7$   
 $= -11$

(xii)  $(-20) \times (-1) + 14 \div 7$   
It can be written as  
 $= (-20) \times (-1) + 14/7$   
By further calculation  
 $= (-20) \times (-1) + 2$   
So we get  
 $= 20 + 2$   
 $= 22$