Mathematics
(www.tiwariacademy.com)
(Chapter - 11) (Algebra)
(Class - VI)
Exercise 11.3

**Question 1:**
Make up as many expressions with numbers (no variables) as you can from three numbers 5, 7 and 8. Every number should be used not more than once. Use only addition, subtraction and multiplication.
(Hint: Three possible expressions are $5 + (8 - 7)$, $5 - (8 - 7)$, $(5 \times 8) + 7$ make the other expressions)

**Answer 1:**
(a) $(8 \times 5) - 7$
(b) $(8 + 5) - 7$
(c) $(8 \times 7) - 5$
(d) $(8 + 7) - 5$
(e) $5 \times (7 + 8)$
(f) $5 + (7 \times 8)$
(g) $5 + (8 - 7)$
(h) $5 - (7 + 8)$

**Question 2:**
Which out of the following are expressions with numbers only:

(a) $y + 3$
(b) $(7 \times 20) - 8z$
(c) $5(21 - 7) + 7 \times 2$
(d) $5$
(e) $3x$
(f) $5 - 5n$
(g) $(7 \times 20) - (5 \times 10) - 45 + p$

**Answer 2:**
(c) and (d)

**Question 3:**
Identify the operations (addition, subtraction, division, multiplication) in forming the following expressions and tell how the expressions have been formed:

(a) $z + 1, z - 1, y + 17, y - 17$
(b) $17y, \frac{y}{17}, 5z$
(c) $2y + 17, 2y - 17$
(d) $7m, -7m + 3, -7m - 3$

**Answer 3:**
(a) $z + 1 \rightarrow$ Addition
$z - 1 \rightarrow$ Subtraction
$y + 17 \rightarrow$ Addition
$y - 17 \rightarrow$ Subtraction

(b) $17y \rightarrow$ Multiplication
$\frac{y}{17} \rightarrow$ Division
$5z \rightarrow$ Multiplication

(c) $2y + 17 \rightarrow$ Multiplication and Addition
$2y - 17 \rightarrow$ Multiplication and Subtraction

(d) $7m \rightarrow$ Multiplication
$-7m + 3 \rightarrow$ Multiplication and Addition
$-7m - 3 \rightarrow$ Multiplication and Subtraction
Mathematics
(www.tiwariacademy.com)
(Chapter - 11) (Algebra)
(Class - VI)

Question 4:
Give expressions for the following cases:
(a) 7 added to \( p \).  
(b) 7 subtracted from \( p \).  
(c) \( p \) multiplied by 7.  
(d) \( p \) divided by 7.  
(e) 7 subtracted from \(-m\).  
(f) \(-p\) multiplied by 5.  
(g) \(-p\) divided by 5.  
(h) \( p \) multiplied by \(-5\).

Answer 4:
(a) \( p + 7 \)  
(b) \( p - 7 \)  
(c) \( 7p \)  
(d) \( \frac{p}{7} \)  
(e) \( -m - 7 \)  
(f) \( -5p \)  
(g) \( \frac{-p}{5} \)  
(h) \( -5p \)

Question 5:
Give expression in the following cases:
(a) 11 added to \( 2m \).  
(b) 11 subtracted from \( 2m \).  
(c) 5 times \( y \) to which 3 is added.  
(d) 5 times \( y \) from which 3 is subtracted.  
(e) \( y \) is multiplied by \(-8\).  
(f) \( y \) is multiplied by \(-8\) and then 5 is added to the result.  
(g) \( y \) is multiplied by 5 and result is subtracted from 16.  
(h) \( y \) is multiplied by \(-5\) and the result is added to 16.

Answer 5:
(a) \( 2m + 11 \)  
(b) \( 2m - 11 \)  
(c) \( 5y + 3 \)  
(d) \( 5y - 3 \)  
(e) \( -8y \)  
(f) \( -8y + 5 \)  
(g) \( 16 - 5y \)  
(h) \( -5y + 16 \)

Question 6:
(a) From expressions using \( t \) and 4. Use not more than one number operation. Every expression must have \( t \) in it.
(b) Form expressions using \( y \), 2 and 7. Every expression must have \( y \) in it. Use only two number operations. These should be different.

Answer 6:
(a) \( t + 4, t - 4, 4 - t, 4t, \frac{t}{4}, \frac{4}{t} \)
(b) \( 2y + 7, 2y - 7, 7y + 2, 7y - 2 \) and so on.