NCERT SOLUTIONS FOR CLASS 6 MATHS ALGEBRA 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 × 8) + 7; make the other expressions.)

Answer:

Many expressions can be formed by using the three numbers 5, 7, and 8.

Some of these are as follows.

5 × (8 − 7)

5 × (8 + 7)

(8 + 5) ×7

(8 − 5) ×7

(7 + 5) ×8

(7 − 5) ×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:

It can be observed that the expressions in alternatives (c) and (d) are formed by using numbers only.

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:

(a) Addition as 1 is added to z.

Subtraction as 1 is subtracted from z.

Addition as 17 is added to y.

Subtraction as 17 is subtracted from y.

(b) Multiplication as y is multiplied with 17.

Division as y is divided by 17.

Multiplication as z is multiplied with 5.

(c) Multiplication and addition

y is multiplied with 2, and 17 is added to the result.

Multiplication and subtraction

y is multiplied with 2, and 17 is subtracted from the result.

(d) Multiplication as m is multiplied with 7.

Multiplication and addition as m is multiplied with −7, and 3 is added to the result.

Multiplication and subtractionas m is multiplied by −7, and 3 is subtracted from the result.

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:

(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 expressions 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 the result is subtracted from 16

(h) y is multiplied by -5 and the result is added to 16

Answer:

(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) Form 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:

(a) $t + 4, t - 4, 4t, \frac{t}{4}, \frac{4}{t}, 4 - t, 4 + t$

(b) $2y + 7, 2y - 7, 7y + 2,...$

********** END **********