

1. evaluate when  $x = 1$ ,  $y = 2$  and  $z = 3$

(i)  $3xy$

(ii)  $2z$

(iii)  $\frac{9}{yz}$

(iv)  $\frac{yz}{14}$

(v)  $2y+4z$

(vi)  $x+3y-2z$

(vii)  $yz+xz$

(viii)  $y^2+z^2$

(ix)  $2x^2+y$

(x)  $2y^2-z^3$

(xi)  $y^2z$

(xii)  $3y^2z^2$

2. evaluate when  $p = 4$ ,  $q = 5$  and  $r = 6$

(i)  $p^2+q^3-r^2+3pqr$

(ii)  $(p-q+r)(2q-4r)$

(iii)  $(p-r)^2+(q-p)^2$

(iv)  $\frac{p}{r}-\frac{q}{p}+\frac{r}{q}$

(v)  $\frac{p-1}{3}-\frac{q-r}{2}$

(vi)  $\frac{r+p}{4}-\frac{p-q}{3}$

(vii)  $3p^2+2q-2pq^2r$

(viii)  $p^2+2q^3-2r^2$

(ix)  $\frac{p+q}{r}-\frac{pq+r}{p}$

(x)  $\frac{p+2q}{r-q}-\frac{p+r}{p+q}$

(xi)  $\frac{3r^2+2p}{pq-r}-\frac{2q}{r}$

(xii)  $\frac{p^2-q^2}{r}-\frac{p-r^2}{r+2p}$

1.

(i) 6

(ii) 6

(iii)  $\frac{3}{2}$

(iv)  $\frac{3}{7}$

(v) 16

(vi) 1

(vii) 9

(viii) 13

(ix) 4

(x) -19

(xi) 12

(xii) 108

2.

(i) 465

(ii) -70

(iii) 5

(iv)  $\frac{37}{60}$

(v)  $1\frac{1}{2}$

(vi)  $2\frac{5}{6}$

(vii) -1142

(viii) 194

(ix) -5

(x)  $12\frac{8}{9}$

(xi)  $6\frac{13}{21}$

(xii)  $3\frac{11}{14}$