EXERCISE 8.2 PAGE NO: 8.4

Divide:
1. $6x^3y^2z^2$ by $3x^2yz$
Solution:
We have,
$6x^3y^2z^2 / 3x^2yz$
By using the formula $a^n / a^m = a^{n-m}$
$6/3\ x^{3-2}\ y^{2-1}\ z^{2-1}$
$2xyz$

2. $15m^2n^3$ by $5m^2n^2$
Solution:
We have,
$15m^2n^3 / 5m^2n^2$
By using the formula $a^n / a^m = a^{n-m}$
$15/5\ m^{2-2}\ n^{3-2}$
$3n$

3. $24a^3b^3$ by -8ab
Solution:
We have,
$24a^3b^3 / -8ab$
By using the formula $a^n / a^m = a^{n-m}$
$24/-8\ a^{3-1}\ b^{3-1}$
$-3a^2b^2$

4. $-21abc^2$ by 7abc
Solution:
We have,
$-21abc^2 / 7abc$
By using the formula $a^n / a^m = a^{n-m}$
$-21/7\ a^{1-1}\ b^{1-1}\ c^{2-1}$
$-3c$

5. $72xyz^2$ by -9xz
Solution:
We have,
$72xyz^2 / -9xz$

By using the formula $a^n / a^m = a^{n-m}$

$72/-9 \ x^{1-1} \ y \ z^{2-1}$

$-8yz$

6. $-72a^4b^5c^8$ by $-9a^2b^2c^3$

Solution:

We have,

$-72a^4b^5c^8 / -9a^2b^2c^3$

By using the formula $a^n / a^m = a^{n-m}$

$-72/-9 \ a^{4-2} \ b^{5-2} \ c^{8-3}$

$8a^2b^3c^5$

Simplify:

7. $16m^3y^2 / 4m^2y$

Solution:

We have,

$16m^3y^2 / 4m^2y$

By using the formula $a^n / a^m = a^{n-m}$

$16/4 \ m^{3-2} \ y^{2-1}$

$4my$

8. $32m^2n^3p^2 / 4mnp$

Solution:

We have,

$32m^2n^3p^2 / 4mnp$

By using the formula $a^n / a^m = a^{n-m}$

$32/4 \ m^{2-1} \ n^{3-1} \ p^{2-1}$

$8m^2n^2p$