

7-2 STUDY GUIDE
ANSWERS TO EXERCISES

Set A

1. $\frac{5^5}{5^2}$ 5^3 or 125

2. $\frac{m^6}{m^4}$ m^2

3. $\frac{p^5 n^4}{p^2 n}$ $p^3 n^3$

4. $\frac{a^2}{a}$ a

5. $\frac{x^5 y^3}{x^5 y^2}$ y

6. $\frac{-2y^7}{14y^5}$ $-\frac{1}{7}y^2$

7. $\frac{xy^6}{y^4 x}$ y^2

8. $\left(\frac{2a^2 b}{a}\right)^3$ $8a^3 b^3$

9. $\left(\frac{4p^4 r^4}{3p^2 r^2}\right)^3$ $\frac{64}{27}p^6 r^6$

10. $\left(\frac{2r^5 w^3}{r^4 w^3}\right)^4$ $16r^4$

11. $\left(\frac{3r^6 n^3}{2r^5 n}\right)^4$ $\frac{81}{16}r^4 n^8$

12. $\frac{r^7 n^7 t^2}{n^3 r^3 t^2}$ $r^4 n^4$

Set B

1. $\frac{2^2}{2^{-3}}$ 2^5 or 32

2. $\frac{m}{m^{-4}}$ m^5

3. $\frac{p^{-8}}{p^3}$ $\frac{1}{p^{11}}$

4. $\frac{b^{-4}}{b^{-5}}$ b

5. $\frac{(-x^{-1}y)^0}{4w^{-1}y^2}$ $\frac{w}{4y^2}$

6. $\frac{(a^2 b^3)^2}{(ab)^{-2}}$ $a^6 b^8$

7. $\frac{x^4 y^0}{x^{-2}}$ x^6

8. $\frac{(6a^{-1}b)^2}{(b^2)^4}$ $\frac{36}{a^2 b^6}$

9. $\frac{(3rt)^2 u^{-4}}{r^{-1} t^2 u^7}$ $\frac{9r^3}{u^{11}}$

10. $\frac{m^{-3} t^{-5}}{(m^2 t^3)^{-1}}$ $\frac{1}{m t^2}$

11. $\left(\frac{4m^2 n^2}{8m^{-1} l}\right)^0$ 1

12. $\frac{(-2mn^2)^{-3}}{4m^{-6} n^4}$ $-\frac{m^3}{32n^{10}}$