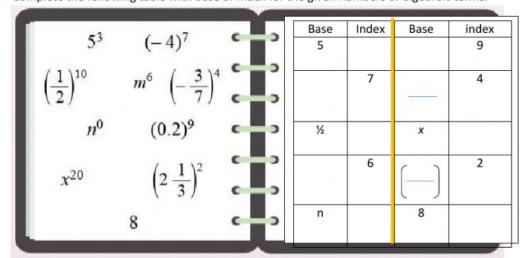
## **EXERCISE 1**

1. Complete the following table with base or index for the given numbers or algebraic terms.



2. Write the following repeated multiplications in index form.

a)	5 x 5 x 5 x 5 x 5 x 5		g)	0.3 x 0.3 x 0.3 x 0.3	
b)	(-2)x(-2)x(-2)		h)	$\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4} \times \frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$	(-)
c)	m x m x m x m x m x m x m		i)	n x n x n x n x n x n x n x n x n	
d)	6 x 6 x 6 x 6 x 6		j)	(-m)x(-m)x(-m)x(-m)	
e)	$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$	(-)	k)	0.5 x 0.5 x 0.5 x 0.5 x 0.5 x 0.5 x 0.5	
f)	$1\frac{2}{3} \times 1\frac{2}{3} \times 1\frac{2}{3}$	(-)	1)	$\left(-\frac{1}{n}\right) \times \left(-\frac{1}{n}\right) \times \left(-\frac{1}{n}\right) \times \left(-\frac{1}{n}\right)$	(-)

3. Convert the numbers or algebraic terms in index form into repeated multiplications (fill in with number 1 for unnecessary box)

c) k <sup>6</sup>						
=	x	x	x	x	x	×
d) (3n) <sup>5</sup>						

## EXERCISE 2

1. Calculate the value of each of the following numbers in index form

a) 9 <sup>4</sup>	b) (-4) <sup>5</sup>	c) (2.5) <sup>3</sup>	d) (-3.2) <sup>3</sup>
=	=	=	=
e) $(\frac{3}{8})^5$	f) $\left(-\frac{1}{6}\right)^4$	g) $(1\frac{2}{3})^2$	h) $\left(-2\frac{1}{3}\right)^3$
	=	=	=

2. Write each of the following numbers in index form using the stated base in brackets (Fill in with symbol / for unnecessary box)

a) 810000 [base of 30]	b) 64000 [ base of 40 ]	c) -0.00032 [base of -0.2]
	<u> </u>	
Answer:		
	Answer :	Answer :

3. Simplify each of the following:

a) 7 <sup>5</sup> x 7 x 7 <sup>4</sup>	b) (-0.5) <sup>5</sup> x (-0.5) x (-0.5)
=	=
=	=
c)	d)
$5m^3 \times \frac{1}{5}m \times (-6)m^2$	$n \times \frac{3}{16}n^5 \times \frac{4}{3}n^3 \times n^2$
= xx( )x	= x x

e)  $2k^{6} \times 50k \times \left(-\frac{1}{10}k^{2}\right)$ = x x \_\_\_\_ x

=

d)  $2p^{7} \times (-p^{5}) \times 7p^{2}$ = x( )x( )x