## Simplify

$6 q^{4}$
$10 q^{8} \cdot 4 q^{3}$
() $\frac{3}{20} q^{-7}$
( $\frac{3}{20} q^{7}$
$\frac{3}{20} q^{15}$
( $\frac{3}{20} q^{-15}$

## Show your work

\#2

## Simplify

$2 g^{3}$
$6 g^{9} \cdot g^{4}$

- $\frac{1}{3} g^{16}$
- $\frac{1}{3} \mathrm{~g}^{-10}$
- $\frac{1}{3} \mathrm{~g}^{-16}$
( $\frac{1}{3} g^{10}$


## Show your work

## Simplify

$5 s^{4}$
$9 s^{3} \cdot 2 s^{6}$
$\frac{5}{18} s^{13}$
$\frac{5}{18} s^{5}$
$\frac{5}{18} s^{-13}$
$\frac{5}{18} s^{-5}$

## Simplify

$6 w^{10}$
$5 w^{2} \cdot 10 w^{4}$
( $\frac{3}{25} w^{-4}$

- $\frac{3}{25} w^{4}$
$\frac{3}{25} w^{-16}$
$\frac{3}{25} w^{16}$


## Show your work

\#5

## Simplify

$7 v^{7}$
$9 v^{10} \cdot 10 v^{6}$

- $\frac{7}{90} v^{23}$
- $\frac{7}{90} v^{-9}$
- $\frac{7}{90} v^{-23}$
- $\frac{7}{90} v^{9}$


## Show your work

\#6

## Simplify

$4 p^{2}$
$5 p^{5} \cdot 2 p$

- ${ }_{5}^{2} \mathrm{p}^{-4}$
$-{ }_{\frac{2}{5}} \mathrm{p}^{4}$
- ${ }_{\frac{2}{5} p^{8}}$
- $\frac{2}{5} \mathrm{p}^{-8}$


## Simplify

## $8 z^{3} \cdot 6 z^{10}$ <br> $$
3 z
$$

$16 z^{-12}$$16 z^{14}$
( $16 z^{-14}$$16 z^{12}$

## Show your work

\#8

## Simplify

$$
\frac{8 x^{4}}{x^{5} \cdot 5 x^{10}}
$$

( $1 \frac{3}{5} x^{-19}$$1 \frac{3}{5} x^{-11}$

- $1 \frac{3}{5} \times{ }^{11}$$1 \frac{3}{5} x^{19}$


## Show your work

\#9

$$
\begin{array}{r}
\text { Simplify } \\
2 x^{6} \\
\hline x^{8} \cdot 9 x^{4}
\end{array}
$$

$\frac{2}{9} x^{-6}$
$\frac{2}{9} x^{6}$

- $\frac{2}{9} x^{18}$
$\frac{2}{9} x^{-18}$


## Simplify

## $7 q^{3} \cdot q^{9}$ <br> 2q

- $3 \frac{1}{2} 9^{-11}$
- $3 \frac{1}{2} 9^{11}$
- $3 \frac{1}{2} q^{13}$
- $3 \frac{1}{2} 9^{-13}$


## Show your work

\#11

## Simplify

## $b^{3} \cdot 5 b^{6}$ <br> $6 b^{7}$

- $\frac{5}{6} b^{16}$
( $\frac{5}{6} b^{2}$
- $\frac{5}{6} b^{-16}$
( $\frac{5}{6} b^{-2}$


## Show your work

## Simplify

## 4w <br> $10 w^{6} \cdot 3 w^{8}$

$\frac{2}{15} w^{-13}$
$\frac{2}{15} w^{15}$
$\frac{2}{15} w^{13}$
$\frac{2}{15} w^{-15}$

| Question | Answer |
| :---: | :---: |
| \#1 | choice 1 |
| \#2 | choice 2 |
| \#3 | choice 4 |
| \#4 | choice 2 |
| \#5 | choice 2 |
| \#6 | choice 1 |
| \#7 | choice 4 |
| \#8 | choice 2 |
| \#9 | choice 1 |
| \#10 | choice 2 |
| \#11 | choice 2 |
| \#12 | choice 1 |

