

Outcome 3 - Multiplying Algebraic Fractions

Bronze examples

Examples...

$$\frac{2}{a} \times \frac{3}{b} = \frac{6}{ab}$$

- Multiply the numerators!
- Multiply the denominators!

$$\frac{6}{f} \times \frac{e}{7} = \frac{6e}{7f}$$

$$\frac{a}{c} \times \frac{b}{d} = \frac{ab}{cd}$$

Silver examples

Examples...

- Multiply the numerators!
- Multiply the denominators!
- Simplify!

$$\frac{a}{4} \times \frac{2}{3} = \frac{2a}{12} = \frac{a}{6}$$

$$\frac{3}{y} \times \frac{1}{9} = \frac{3}{9y} = \frac{1}{3y}$$

$$\frac{4}{9} \times \frac{t}{6} = \frac{4t}{54} = \frac{2t}{27}$$

Gold examples

Examples...

- Multiply the numerators!
- Multiply the denominators!
- Simplify!

$$\frac{a}{9} \times \frac{3}{4a} = \frac{3a}{36a} = \frac{1}{12}$$

$$\frac{2}{y} \times \frac{y^2}{8} = \frac{2y^2}{8y} = \frac{y}{4}$$

$$\frac{2}{9t^3} \times \frac{t}{6} = \frac{2t}{54t^3} = \frac{1}{27t^2}$$

Bronze Questions

Multiply the following fractions...

 $\frac{5}{d} \times \frac{2}{e}$	 $\frac{1}{m} \times \frac{9}{n}$
 $\frac{6}{k} \times \frac{9}{l}$	 $\frac{2}{t} \times \frac{s}{3}$
 $\frac{p}{3} \times \frac{8}{q}$	 $\frac{x}{11} \times \frac{6}{y}$
 $\frac{d}{4} \times \frac{c}{9}$	 $\frac{e}{g} \times \frac{f}{h}$

Silver Questions

Multiply the following fractions...

 $\frac{1}{4} \times \frac{8}{z}$	 $\frac{2}{m} \times \frac{1}{12}$
 $\frac{p}{12} \times \frac{3}{5}$	 $\frac{4}{9} \times \frac{k}{12}$
 $\frac{2}{y} \times \frac{3}{8}$	 $\frac{11}{12} \times \frac{6}{c}$
 $\frac{w}{8} \times \frac{4}{5}$	 $\frac{6}{10} \times \frac{r}{5}$

Gold Questions

Multiply the following fractions...

 $\frac{b}{8} \times \frac{2}{5b}$	 $\frac{g}{3} \times \frac{24}{5g}$
 $\frac{2}{h} \times \frac{h^2}{16}$	 $\frac{p^2}{2} \times \frac{24}{p}$
 $\frac{d}{3} \times \frac{27}{d^2}$	 $\frac{12}{5v^3} \times \frac{2v}{3}$
 $\frac{9f^3}{16} \times \frac{2}{f}$	 $\frac{4}{7c^3} \times \frac{c^2}{8}$

Bronze Answers

- | | |
|------------|-------------|
| 1. $10/de$ | 2. $9/mn$ |
| 3. $54/kl$ | 4. $2s/3t$ |
| 5. $8p/3q$ | 6. $6x/11y$ |
| 7. $dc/36$ | 8. ef/gh |

Silver Answers

- | | |
|-----------|------------|
| 1. $2/z$ | 2. $1/6m$ |
| 3. $p/20$ | 4. $k/27$ |
| 5. $3/4y$ | 6. $11/2c$ |
| 7. $w/10$ | 8. $3r/25$ |

Gold Answers

- | | |
|-------------|-------------|
| 1. $1/20$ | 2. $8/5$ |
| 3. $h/8$ | 4. $12p$ |
| 5. $9/d$ | 6. $8/5v^2$ |
| 7. $9f^2/8$ | 8. $1/14c$ |