

1. Simplify.

$$\frac{45(u+4)}{9(u+4)(2u+3)} = \frac{9 \cdot 5}{9(2u+3)} = \boxed{\frac{5}{2u+3}}$$

HWS.3a

You may leave the numerator and denominator of your answer in factored form.

2. Simplify.

$$\frac{5u^2 - 35u}{8u^2 - 56u} = \frac{5u(u-7)}{8u(u-7)} = \boxed{\frac{5}{8}}$$

3. For each expression, simplify if possible.

$$\frac{8x+3}{3+8x} = \frac{\cancel{8x+3}}{\cancel{8x+3}} = \frac{1}{1} = \boxed{1}$$

$$\frac{2x+5}{5x+2} = \text{cannot simplify}$$

1. Simplify.

$$\frac{v-4}{v^2+v-20}$$

$$\begin{array}{r} -20 \\ 5 \times -4 \\ | \end{array}$$

$$\frac{\cancel{v-4}}{(v+5)(\cancel{v-4})} = \boxed{\frac{1}{v+5}}$$

HWS.3b

2. Simplify.

$$\frac{w^2+7w+10}{4w^2+4w-80}$$

$$4(w^2+w-20)$$

$$\begin{array}{r} -20 \\ 5 \times -4 \\ | \end{array}$$

$$\begin{array}{r} 10 \\ 5 \times 2 \\ 7 \end{array}$$

$$\frac{(\cancel{w+5})(w+2)}{4(\cancel{w+5})(w-4)} = \boxed{\frac{w+2}{4(w-4)}}$$

3. Simplify.

$$\frac{u^2-2u-24}{72-2u^2}$$

$$\begin{array}{l} -2(u^2-36) \\ (u^2-(6)^2) \end{array}$$

$$\begin{array}{r} -24 \\ -6 \times 4 \\ -2 \end{array}$$

$$\frac{(\cancel{u-6})(u+4)}{-2(u+6)(\cancel{u-6})} = \boxed{\frac{u+4}{-2(u+6)}}$$