

## Assignment

Simplify each expression.

1)  $\frac{m^2 - 6m - 16}{m^2 - 5m - 24} \div \frac{m + 1}{4m^3 + 4m^2}$

2)  $\frac{2x^2 + 10x}{x + 2} \div \frac{49 - x^2}{x^2 - 5x - 14}$

3)  $\frac{b^2 - 4}{b^2 + 12b + 20} \cdot \frac{2b^2 + 18b}{b + 9}$

4)  $\frac{n^2 + 9n + 20}{3n^2 + 27n} \div \frac{n^2 + 14n + 45}{n^2 + 18n + 81}$

5)  $\frac{6b - 30}{b - 2} \div \frac{30b - 6}{35b - 7}$

6)  $\frac{49 - 35x}{10x - 14} \div \frac{x - 5}{x^2 - 13x + 40}$

7)  $\frac{6a^2 + 48a}{a - 4} \cdot \frac{2a^2 - 8a}{2a^2 + 16a}$

8)  $\frac{5r^2 - 30r}{5r} \cdot \frac{r^2 - 16}{r^2 - 3r - 28}$

9)  $\frac{x^2 + 6x + 8}{7x^2 + 28x} \cdot \frac{x^2 + 2x - 24}{x - 4}$

10)  $\frac{n^2 + 14n + 49}{5n^2 + 35n} \div \frac{n^2 + 15n + 56}{5n^2 + 35n}$

11)  $\frac{12n + 18}{5n^2 + 28n + 15} \div \frac{10n^2 + 13n - 3}{25n^2 + 10n - 3}$

12)  $\frac{18n - 54}{n + 5} \div \frac{6n^2 + 6n - 72}{8n + 32}$

13)  $\frac{2x^2 + 15x + 28}{2x^2 - x - 28} \cdot \frac{5x + 2}{50x + 20}$

14)  $\frac{10n^3 - 12n^2}{4n - 20} \div \frac{12n^2 - 10n^3}{2n^2 - 2n - 40}$

## Answers to Assignment (ID: 1)

$$1) \frac{4m^2(m+2)}{m+3}$$

$$5) \frac{7(b-5)}{b-2}$$

$$9) \frac{(x+2)(x+6)}{7x}$$

$$13) \frac{x+4}{10(x-4)}$$

$$2) \frac{2x(x+5)}{-7-x}$$

$$6) -\frac{7(x-8)}{2}$$

$$10) \frac{n+7}{n+8}$$

$$14) \frac{-n-4}{2}$$

$$3) \frac{2b(b-2)}{b+10}$$

$$7) 6a$$

$$11) \frac{6}{n+5}$$

$$4) \frac{n+4}{3n}$$

$$8) \frac{(r-4)(r-6)}{r-7}$$

$$12) \frac{24}{n+5}$$