

Algebraic Fractions Review

AF 1: Evaluate for the given value.

1) $\frac{n-4}{n^2-16}$, $n=4$

2) $\frac{x^2-14x+40}{50+5x-x^2}$, $x=2$

3) $\frac{16k^2}{12k}$, $k=-1$

4) $\frac{x^2-17x+70}{3x^3-24x^2+21x}$ $x=5$

AF 2: Find the excluded values

5) $\frac{r-7}{r^2-12r+35}$

6) $\frac{10n-8}{14}$

7) $\frac{b^2+8b-20}{b^2-12b+20}$

8) $\frac{3x^3-9x^2-84x}{x^2+2x-63}$

AF 3: Simplify:

9) $\frac{4n^2-14n}{16n^3}$

10) $\frac{a^2-a-12}{2a^3-4a^2-30a}$

AF 4: Add or Subtract and Simplify

11) $\frac{3}{3a} - \frac{6}{2a+6}$

12) $\frac{5n}{3n} + \frac{n+2}{3n-6}$

13) $\frac{6}{2} - \frac{2n-3}{n-3}$

14) $\frac{a+3}{a+6} - \frac{4}{5}$

AF 5: Multiplying and Dividing

15) $8m \cdot \frac{7m}{8m^2 - 8m}$

16) $\frac{49v-49}{7v+7} \cdot \frac{10}{7v-7}$

17) $(2v+7) \div \frac{2v^2-3v-35}{5v+40}$

18) $\frac{15k-30}{7k^2-56k+49} \div \frac{5k-10}{21k-21}$

19) $\frac{2b^2-12b+16}{30b^3-40b^2} \cdot \frac{30b^3-40b^2}{2b^2+2b-12}$

20) $\frac{24x^3-72x^2}{2x^2-2} \div \frac{12x^2-36x}{8x^2-8x}$