 Name_____

Dividing Rational Expressions

Date_____ Period____

Simplify each expression.

1) $\frac{10n}{9} \div \frac{13n^2}{16}$

2) $\frac{16n}{17} \div \frac{8n}{6}$

3) $\frac{2}{7} \div \frac{18}{8x^2}$

4) $\frac{12}{7} \div \frac{4}{11r}$

5) $\frac{7}{18} \div \frac{6}{9a}$

6) $\frac{5}{20} \div \frac{5x}{3}$

7) $\frac{4n}{n-6} \div \frac{4n}{8n-48}$

8) $\frac{3}{28b} \div \frac{3}{b+1}$

9) $\frac{7a^2}{7a^3+56a^2} \div \frac{2}{a^2+7a-8}$

10) $\frac{6}{28x+4} \div \frac{6}{35x+5}$

11) $\dfrac{x^2+10x+16}{x^2+6x+8} \div \dfrac{1}{x+4}$

12) $\dfrac{49x+21}{6x} \div \dfrac{42x+18}{6}$

13) $\dfrac{7}{8r-40} \div \dfrac{1}{8r-40}$

14) $\dfrac{1}{2a} \div \dfrac{8a}{2a^2+16a}$

15) $\dfrac{8}{4n^2-16n} \div \dfrac{1}{n-4}$

16) $\dfrac{a-4}{a^2-2a-8} \div \dfrac{1}{a-5}$

17) $\dfrac{b^2-2b-15}{8b+20} \div \dfrac{2}{4b+10}$

18) $\dfrac{10b^2+42b+36}{6b^2-2b-60} \div \dfrac{40b+48}{3b^2-13b+10}$

19) $\dfrac{16x-56}{8} \div \dfrac{8x-28}{4}$

20) $\dfrac{10x^2-28x+16}{2x-4} \div \dfrac{25x^2-25x+4}{5x^2-41x+8}$

21) $\dfrac{6p+27}{18p^2+36p} \div \dfrac{16p+72}{2p+4}$

22) $\dfrac{3x^2-25x-18}{27x+18} \div \dfrac{5x-3}{5x^2-33x+18}$

Name_____

Dividing Rational Expressions

Date_____ Period____

Simplify each expression.

1) $\frac{10n}{9} \div \frac{13n^2}{16}$

$\frac{160}{117n}$

2) $\frac{16n}{17} \div \frac{8n}{6}$

$\frac{12}{17}$

3) $\frac{2}{7} \div \frac{18}{8x^2}$

$\frac{8x^2}{63}$

4) $\frac{12}{7} \div \frac{4}{11r}$

$\frac{33r}{7}$

5) $\frac{7}{18} \div \frac{6}{9a}$

$\frac{7a}{12}$

6) $\frac{5}{20} \div \frac{5x}{3}$

$\frac{3}{20x}$

7) $\frac{4n}{n-6} \div \frac{4n}{8n-48}$

8

8) $\frac{3}{28b} \div \frac{3}{b+1}$

$\frac{b+1}{28b}$

9) $\frac{7a^2}{7a^3+56a^2} \div \frac{2}{a^2+7a-8}$

$\frac{a-1}{2}$

10) $\frac{6}{28x+4} \div \frac{6}{35x+5}$

$\frac{5}{4}$

11) $\dfrac{x^2+10x+16}{x^2+6x+8} \div \dfrac{1}{x+4}$

$x+8$

12) $\dfrac{49x+21}{6x} \div \dfrac{42x+18}{6}$

$\dfrac{7}{6x}$

13) $\dfrac{7}{8r-40} \div \dfrac{1}{8r-40}$

7

14) $\dfrac{1}{2a} \div \dfrac{8a}{2a^2+16a}$

$\dfrac{a+8}{8a}$

15) $\dfrac{8}{4n^2-16n} \div \dfrac{1}{n-4}$

$\dfrac{2}{n}$

16) $\dfrac{a-4}{a^2-2a-8} \div \dfrac{1}{a-5}$

$\dfrac{a-5}{a+2}$

17) $\dfrac{b^2-2b-15}{8b+20} \div \dfrac{2}{4b+10}$

$\dfrac{(b+3)(b-5)}{4}$

18) $\dfrac{10b^2+42b+36}{6b^2-2b-60} \div \dfrac{40b+48}{3b^2-13b+10}$

$\dfrac{b-1}{8}$

19) $\dfrac{16x-56}{8} \div \dfrac{8x-28}{4}$

1

20) $\dfrac{10x^2-28x+16}{2x-4} \div \dfrac{25x^2-25x+4}{5x^2-41x+8}$

$x-8$

21) $\dfrac{6p+27}{18p^2+36p} \div \dfrac{16p+72}{2p+4}$

$\dfrac{1}{24p}$

22) $\dfrac{3x^2-25x-18}{27x+18} \div \dfrac{5x-3}{5x^2-33x+18}$

$\dfrac{(x-9)(x-6)}{9}$