

Agenda

1) Go over HW Questions

- Groups
- On board

2) Review Worksheets: Level 3 & 4

5.4: Objective: To Simplify Rational Algebraic Expressions

5.5: Objective: To Multiply and Divide Rational Expressions

HW: Study Guide Worksheet 5-4 Evens

Practice: Level 3

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

12)
$$\frac{(p+6)(p-4)}{p-4} \cdot \frac{1}{(p-4)(p-2)}$$

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

14)
$$\frac{7n}{24n^3 - 64n^2} \cdot \frac{9n-24}{7n}$$

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

16) $\frac{20a^2 - 100a}{a - 1} \cdot \frac{1}{16a^3 - 80a^2}$

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

18) $\frac{p + 7}{p - 10} \cdot \frac{p + 2}{7p + 14}$

Practice: Level 4

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

20) $\frac{1}{p-9} \cdot \frac{p^2 + 6p - 27}{p+9}$

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

22) $\frac{5r + 50}{r + 10} \cdot \frac{r - 2}{5}$

$$23) \frac{x^2 - 10x + 25}{10x - 100} \cdot \frac{x - 10}{45 - 9x}$$

$$24) \frac{45x^2}{x - 9} \cdot \frac{x^2 - 5x - 36}{3x^3 + 12x^2}$$

$$25) \frac{8v - 56}{8v + 48} \cdot \frac{v^2 + 9v + 18}{8v^2 + 24v}$$

$$26) \frac{9r^3 - 54r^2}{9r^2 + 45r} \cdot \frac{9r^2 + 9r}{9r^3 - 54r^2}$$

Practice: Level 3

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

$$x + 8$$

$$12) \frac{(p+6)(p-4)}{p-4} \cdot \frac{1}{(p-4)(p-2)}$$

$$\frac{p+6}{(p-4)(p-2)}$$

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

$$7$$

$$14) \frac{7n}{24n^3 - 64n^2} \cdot \frac{9n - 24}{7n}$$

$$\frac{3}{8n^2}$$

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

$$\frac{2}{n}$$

$$16) \frac{20a^2 - 100a}{a-1} \cdot \frac{1}{16a^3 - 80a^2}$$

$$\frac{5}{4a(a-1)}$$

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

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

$$18) \frac{p+7}{p-10} \cdot \frac{p+2}{7p+14}$$

$$\frac{p+7}{7(p-10)}$$

Practice: Level 4

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

$$1$$

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

$$\frac{1}{24p}$$

$$23) \frac{x^2-10x+25}{10x-100} \cdot \frac{x-10}{45-9x}$$

$$-\frac{(x-5)}{90}$$

$$25) \frac{8v-56}{8v+48} \cdot \frac{v^2+9v+18}{8v^2+24v}$$

$$\frac{v-7}{8v}$$

$$20) \frac{1}{p-9} \cdot \frac{p^2+6p-27}{p+9}$$

$$\frac{p-3}{p-9}$$

$$22) \frac{5r+50}{r+10} \cdot \frac{r-2}{5}$$

$$r-2$$

$$24) \frac{45x^2}{x-9} \cdot \frac{x^2-5x-36}{3x^3+12x^2}$$

$$15$$

$$26) \frac{9r^3-54r^2}{9r^2+45r} \cdot \frac{9r^2+9r}{9r^3-54r^2}$$

$$\frac{r+1}{r+5}$$