

8.4 worksheet

Simplify each and state the excluded values.

1) $\frac{4x - 12}{x - 3}$

2) $\frac{x + 5}{x^2 + 2x - 15}$

3) $\frac{n^2 + 9n + 20}{n + 4}$

4) $\frac{p + 4}{8p + 32}$

5) $\frac{54}{18m - 72}$

6) $\frac{35x - 42}{42}$

Simplify each expression.

7) $\frac{16}{19} \cdot \frac{19}{18b^2}$

8) $\frac{20}{5} \cdot \frac{8n^2}{20n^2}$

9) $\frac{3(11r - 14)}{11r(11r - 14)} \cdot \frac{11r}{r + 17}$

10) $\frac{(x - 8)(x - 4)}{x + 17} \cdot \frac{x - 16}{(x - 4)(x - 16)}$

11) $\frac{156n^3 + 168n^2}{12n^2} \cdot \frac{19}{208n + 224}$

12) $\frac{11b - 55}{15b^2} \cdot \frac{b + 2}{b - 5}$

13)
$$\frac{v+11}{v^2+10v-11} \cdot \frac{v^2+2v-3}{20v^2-80v}$$

14)
$$\frac{17k+187}{k^2+4k-77} \cdot \frac{3k-21}{17k-187}$$

15)
$$\frac{9x}{8} \div \frac{3}{5}$$

16)
$$\frac{6a}{5} \div \frac{10}{8}$$

17)
$$\frac{(p-8)^2}{p-8} \div \frac{4p(p-8)}{4p(p-7)}$$

18)
$$\frac{4k}{16} \div \frac{(k+11)(k-5)}{16(k-5)}$$

19)
$$\frac{1}{n-15} \div \frac{n-12}{13n^2-156n}$$

20)
$$\frac{4x+32}{6x^2} \div \frac{x+8}{2}$$

21)
$$\frac{5r+65}{r^2+23r+130} \div \frac{1}{12r^2+120r}$$

22)
$$\frac{10m-140}{m^2+21m+20} \div \frac{m+11}{m^2+12m+11}$$

Answers to 8.4 worksheet

$$1) 4; \{3\}$$

$$3) n + 5; \{-4\}$$

$$5) \frac{3}{m-4}; \{4\}$$

$$7) \frac{8}{9b^2}$$

$$9) \frac{3}{r+17}$$

$$11) \frac{19}{16}$$

$$13) \frac{v+3}{20v(v-4)}$$

$$15) \frac{15x}{8}$$

$$17) p - 7$$

$$19) \frac{13n}{n-15}$$

$$21) 60r$$