

Algebra 1.5

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Simplify each expression. Circle your final answer.

1) $\frac{12x^2}{12x - 20}$

2) $\frac{n - 2}{n^2 - 7n + 10}$

3) $\frac{6b - 2}{8}$

4) $\frac{v^2 - 2v + 1}{v - 1}$

5) $\frac{k^2 + 9k - 10}{k^2 - 10k + 9}$

6) $\frac{6p + 8}{4p - 2}$

7)
$$\frac{a^2 + 20a + 100}{a^2 + 9a - 10}$$

8)
$$\frac{2x + 2}{x^2 - 9x - 10}$$

9)
$$\frac{3x^2 + 24x + 21}{x + 10}$$

10)
$$\frac{3n^3 - 22n^2 - 80n}{6n - 60}$$

Simplify each expression.

11)
$$\frac{20}{10n^2} \cdot \frac{19}{9}$$

12)
$$\frac{2x^3}{8x} \cdot \frac{13}{14}$$

13)
$$\frac{6r^2}{3r} \cdot \frac{11}{11r^3}$$

14)
$$\frac{3x^2 + 24x}{3} \div \frac{x^2 + 13x + 40}{x + 5}$$

$$15) \frac{1}{v+5} \cdot \frac{v^2 + 10v + 25}{8v}$$

$$16) \frac{a+1}{a^2+4a-5} \div \frac{a+1}{a^2-25}$$

$$17) (x^2 + 2x - 48) \cdot \frac{7x}{x^2 + 2x - 48}$$

$$18) (b-4) \div \frac{b-4}{28-3b-b^2}$$

$$19) \frac{10b+25}{b+1} \div \frac{10b+25}{b^2-11b+18}$$

$$20) \frac{10v+14}{15v^2+71v+70} \div \frac{7v^3-21v^2}{3v+10}$$

$$21) \frac{4}{2} - \frac{p-6}{3p+6}$$

$$22) \frac{3k}{k+3} + \frac{5}{k-1}$$

$$23) \frac{2x}{15x-18} - \frac{6}{3x}$$

$$24) \frac{2}{r-6} + \frac{6}{3r-4}$$

$$25) \frac{4}{5} - \frac{m+5}{m-2}$$

$$26) \frac{5}{n+5} - \frac{5n}{n-3}$$

$$27) \frac{4}{n+2} - \frac{4n}{n+4}$$

$$28) \frac{5}{2x+3} + \frac{3x}{6}$$

$$29) \frac{6}{n-4} + \frac{2}{2n-4}$$

$$30) \frac{5k}{2} + \frac{k-5}{2k^2-6k}$$