Simplifying Radical Expressions Involving Fractions

Simplify.

1) $\frac{\sqrt{5}}{\sqrt{3}} =$

2) $\frac{\sqrt{18}}{\sqrt{45}} =$

3) $\frac{\sqrt{10}}{5\sqrt{2}} =$

4) $\frac{13}{\sqrt{3}} =$

5) $\frac{12\sqrt{5r}}{\sqrt{m^5}} =$

6) $\frac{11\sqrt{2}}{\sqrt{k}} =$

7) $\frac{6\sqrt{20x^3}}{\sqrt{16x}} =$

8) $\frac{\sqrt{14x^3y^4}}{\sqrt{7x^4y^3}} =$

9) $\frac{1}{1-\sqrt{5}} =$

10) $\frac{1-8\sqrt{a}}{\sqrt{11a}} =$

11) $\frac{\sqrt{a}}{\sqrt{a}+\sqrt{b}} =$

12) $\frac{1-\sqrt{5}}{2-\sqrt{6}} =$

13) $\frac{4+\sqrt{7}}{3-\sqrt{8}} =$

14) $\frac{5}{-3-3\sqrt{3}}$

15) $\frac{7}{2-\sqrt{5}} =$

16) $\frac{\sqrt{7}-\sqrt{3}}{\sqrt{3}-\sqrt{7}} =$

17) $\frac{\sqrt{5}+\sqrt{7}}{\sqrt{7}-\sqrt{5}} =$

18) $\frac{2\sqrt{2}-\sqrt{3}}{3\sqrt{2}+\sqrt{5}} =$

19) $\frac{\sqrt{11}+5\sqrt{3}}{4-\sqrt{11}} =$

20) $\frac{\sqrt{5}+\sqrt{3}}{2-\sqrt{3}} =$

21) $\frac{\sqrt{32\ ^7b^4}}{\sqrt{2ab^3}} =$

22) $\frac{10\sqrt{21\ ^5}}{5\sqrt{x^3}} =$

Answers of Worksheets

Simplifying radical expressions involving fractions

1) $\frac{\sqrt{15}}{3}$

2) $\frac{9\sqrt{10}}{45} = \frac{\sqrt{10}}{5}$

3) $\frac{\sqrt{20}}{10} = \frac{\sqrt{5}}{5}$

4) $\frac{13\sqrt{3}}{3}$

5) $\frac{12\sqrt{5mr}}{m^3}$

6) $\frac{11\sqrt{2k}}{k}$

7) $3x\sqrt{5}$

8) $\frac{\sqrt{2x}}{xy}$

9) $\frac{-1-\sqrt{5}}{4}$

10) $\frac{\sqrt{11a}-8a\sqrt{11}}{11a}$

11) $\frac{a-\sqrt{ab}}{a-b}$

12) $\frac{\sqrt{30}+2\sqrt{5}-\sqrt{6}-2}{2}$

13) $12 + 8\sqrt{2} + 3\sqrt{7} + 2\sqrt{14}$

14) $-\frac{5(\sqrt{3}-1)}{6}$

15) $-14 - 7\sqrt{5}$

16) -1

17) $6 + \sqrt{35}$

18) $\frac{12 - 2\sqrt{10} - 3\sqrt{6} + \sqrt{15}}{13}$

19) $\frac{4\sqrt{11}+11+20\sqrt{3}+5\sqrt{33}}{5}$

20) $2\sqrt{5} + 3 + \sqrt{15} + 2\sqrt{3}$

21) $4a^3\sqrt{b}$

22) $2x\sqrt{21}$