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Algebra & Functions (Maths 201-016)

Practice Assignment 7b

Rationalize the Denominator

1. $\frac{1}{\sqrt{7}}$

2. $\frac{12}{\sqrt{3}}$

3. $\frac{1}{4\sqrt{2}}$

4. $\frac{\sqrt{2}}{\sqrt{10}}$

5. $\frac{\sqrt{2}}{3\sqrt{6}}$

6. $\frac{\sqrt{10}}{4\sqrt{5}}$

7. $\frac{15}{\sqrt{5}}$

8. $\frac{7\sqrt{2}}{2\sqrt{5}}$

9. $\frac{3\sqrt{3}}{2\sqrt{6}}$

10. $\frac{21\sqrt{2}}{5\sqrt{3}}$

11. $\frac{35\sqrt{6}}{2\sqrt{5}}$

12. $\sqrt{\frac{1}{5}}$

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

14. $\sqrt{\frac{13}{25}}$

15. $\sqrt{\frac{5}{8}}$

16. $\frac{2}{\sqrt{3x}}$

17. $\frac{8}{\sqrt{2x}}$

18. $\frac{6}{\sqrt{3x^3}}$

19. $\frac{10x}{\sqrt{5x}}$

20. $\frac{14x^8}{\sqrt{7x^5}}$

21. $\frac{1}{1+\sqrt{2}}$

22. $\frac{1}{3-\sqrt{5}}$

23. $\frac{5}{1+\sqrt{6}}$

24. $\frac{12}{5-\sqrt{7}}$

25. $\frac{9}{6+\sqrt{3}}$

26. $\frac{\sqrt{2}}{\sqrt{4}-\sqrt{8}}$

27. $\frac{\sqrt{3}}{2\sqrt{3}-\sqrt{5}}$

28. $\frac{\sqrt{16}}{\sqrt{7}-\sqrt{3}}$

29. $\frac{4\sqrt{2}}{\sqrt{6}+3\sqrt{2}}$

30. $\frac{\sqrt{3}+2\sqrt{2}}{3\sqrt{2}-2\sqrt{3}}$

31. $\frac{4\sqrt{2}-\sqrt{5}}{\sqrt{6}+\sqrt{5}}$

Answers

1. $\frac{\sqrt{7}}{7}$

2. $4\sqrt{3}$

3. $\frac{\sqrt{2}}{8}$

4. $\frac{\sqrt{5}}{5}$

5. $\frac{\sqrt{3}}{9}$

6. $\frac{\sqrt{2}}{4}$

7. $3\sqrt{5}$

8. $\frac{7\sqrt{10}}{10}$

9. $\frac{3\sqrt{2}}{4}$

10. $\frac{7\sqrt{6}}{5}$

11. $\frac{7\sqrt{30}}{2}$

12. $\frac{\sqrt{5}}{5}$

13. $\frac{2\sqrt{3}}{3}$

14. $\frac{\sqrt{13}}{5}$

15. $\frac{\sqrt{10}}{4}$

16. $\frac{2\sqrt{3x}}{3x}$

17. $\frac{4\sqrt{2x}}{x}$

18. $\frac{2\sqrt{3x}}{x^2}$

19. $2\sqrt{5x}$

20. $2x^5\sqrt{7x}$

21. $\sqrt{2} - 1$

22. $\frac{3+\sqrt{5}}{4}$

23. $-1 + \sqrt{6}$

24. $\frac{10+2\sqrt{7}}{3}$

25. $\frac{18-3\sqrt{3}}{11}$

26. $-\frac{2+\sqrt{2}}{2}$

27. $\frac{6+\sqrt{15}}{7}$

28. $\sqrt{7} + \sqrt{3}$

29. $\frac{6-2\sqrt{3}}{3}$

30. $\frac{18+7\sqrt{6}}{6}$

31. $8\sqrt{3} - 4\sqrt{10} - \sqrt{30} + 5$