Name: ----------

MATH MONKS

Fractional Exponents Worksheet

Write each of the following in radical form.

1. $(6)^{\frac{1}{3}} =$

2. $(9p)^{\frac{3}{2}} =$

3. $10^{-\frac{7}{5}} =$

4. $(64m)^{\frac{3}{2}} =$

5. $(7n)^{\frac{5}{2}} =$

6. $(7n)^{\frac{2}{5}} =$

7. $(81p)^{-\frac{4}{3}} =$

8. $25p^{\frac{8}{9}} =$

7. $62p^{\frac{2}{5}} =$

8. $(75m)^{-\frac{5}{9}} =$

9. $341p^{\frac{4}{5}} =$

10. $10m^{\frac{5}{3}} =$

11. $(261p)^{-\frac{7}{8}} =$

12. $63n^{-\frac{9}{10}} =$

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Answers

1. $(6)^{\frac{1}{3}} = \sqrt[3]{6}$

2. $(9p)^{\frac{3}{2}} = \sqrt{(9p)^3}$

3. $10^{-\frac{7}{5}} = \frac{1}{\sqrt[5]{10^7}}$

4. $(64m)^{\frac{3}{2}} = \sqrt{(64m)^3}$

5. $(7n)^{\frac{5}{2}} = \sqrt{(7n)^5}$

6. $(7n)^{\frac{2}{5}} = \sqrt[5]{(7n)^2}$

7. $(81p)^{-\frac{4}{3}} = \frac{1}{\sqrt[3]{(81p)^4}}$

8. $25p^{\frac{8}{9}} = 25\sqrt[9]{p^8}$

7. $62p^{\frac{2}{5}} = 62\sqrt[5]{p^2}$

8. $(75m)^{-\frac{5}{9}} = \frac{1}{\sqrt[9]{(75m)^5}}$

9. $341p^{\frac{4}{5}} = 341\sqrt[5]{p^4}$

10. $10m^{\frac{5}{3}} = \sqrt[3]{(10m)^5}$

11. $(261p)^{-\frac{7}{8}} = \frac{1}{\sqrt[8]{(261p)^7}}$

12. $63n^{-\frac{9}{10}} = 63\frac{1}{\sqrt[10]{n^9}}$