

Name: _____

Date _____

Topic : Laws of Rational Exponents - Worksheet 1

Find the value of each of the following

1. $(2456)^{-2/6}$

2. $((7532)^{2/3})^{1/2}$

3. $((6)^{-4/2})^3$

4. $(453)^{-4/6}$

5. $(68)^{-3/4}$

6. $((-10/5)^3)^3$

7. $(x^{-4})^{3/4}$

8. $(312)^{3/4}$

9. If $f(x) = x^{-2} + 2x^{-1/3}$, find $f(4)$

10. If $f(x) = x^{2/3}$, find $f(21)$



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Topic : Laws of Rational Exponents - Worksheet 2

Find the value of each of the following

1. $(1478)^{-3/7}$

2. $((4752)^{3/4})^{2/3}$

3. $((8)^{-5/3})^4$

4. $(555)^{-5/7}$

5. $(74)^{-4/5}$

6. $((-12/6)^4)^3$

7. $(n^{-5})^{4/5}$

8. $(247)^{4/4}$

9. If $f(x) = x^{-2} + 2x^{-1/3}$, find $f(5)$

10. If $f(x) = x^{2/3}$, find $f(15)$



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Topic : Laws of Rational Exponents - Worksheet 3

Find the value of each of the following

1. $(1689)^{-4/8}$

2. $((3125)^{4/5})^{3/4}$

3. $((4)^{-5/3})^4$

4. $(222)^{-6/8}$

5. $(84)^{-5/6}$

6. $((-10/2)^2)^3$

7. $(m^{-6})^{5/6}$

8. $(369)^{5/6}$

9. If $f(x) = x^{-2} + 2x^{-1/3}$, find $f(6)$

10. If $f(x) = x^{2/3}$, find $f(13)$



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Topic : Laws of Rational Exponents - Worksheet 4

Find the value of each of the following

1. $(6523)^{-5/9}$

2. $((7412)^{5/6})^{4/5}$

3. $((5)^{-5/3})^4$

4. $(963)^{-7/9}$

5. $(742)^{-5/6}$

6. $((-6/3)^3)^4$

7. $(k^{-7})^{6/7}$

8. $(958)^{6/7}$

9. If $f(x) = x^{-4} + 2x^{-1/2}$, find $f(13)$

10. If $f(x) = x^{1/3}$, find $f(34)$



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Topic : Laws of Rational Exponents - Worksheet 5

Find the value of each of the following

1. $(9546)^{-6/10}$

2. $((8452)^{6/7})^{5/6}$

3. $((7)^{-5/3})^4$

4. $(463)^{-8/10}$

5. $(348)^{-6/7}$

6. $((-66/6)^4)^1$

7. $(w^{-8})^{7/8}$

8. $(188)^{7/8}$

9. If $f(x) = x^{-4} + 2x^{-1/2}$, find $f(11)$

10. If $f(x) = x^{1/3}$, find $f(31)$

