

Math Sheet

Name _____

Score _____ / 20

Teacher _____

Date _____

Fraction Exponents

Evaluate exact powers with the selected base and exponent types.

1. $\left(\frac{6}{8}\right)^2 =$ _____

2. $\left(\frac{-6}{6}\right)^{-8} =$ _____

3. $\left(\frac{-5}{2}\right)^3 =$ _____

4. $\left(\frac{5}{6}\right)^{-3} =$ _____

5. $\left(\frac{-7}{4}\right)^5 =$ _____

6. $\left(\frac{6}{8}\right)^{-5} =$ _____

7. $\left(\frac{-6}{4}\right)^7 =$ _____

8. $\left(\frac{-7}{5}\right)^{-6} =$ _____

9. $\left(\frac{-8}{8}\right)^6 =$ _____

10. $\left(\frac{6}{6}\right)^{-2} =$ _____

11. $\left(\frac{5}{2}\right)^5 =$ _____

12. $\left(\frac{4}{7}\right)^{-7} =$ _____

13. $\left(\frac{8}{8}\right)^7 =$ _____

14. $\left(\frac{6}{8}\right)^{-3} =$ _____

15. $\left(\frac{6}{4}\right)^7 =$ _____

16. $\left(\frac{3}{8}\right)^{-5} =$ _____

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Fraction Exponents

Evaluate exact powers with the selected base and exponent types.

17.

$$\left(\frac{-7}{7} \right)^3 = \underline{\hspace{2cm}}$$

18.

$$\left(\frac{6}{7} \right)^{-6} = \underline{\hspace{2cm}}$$

19.

$$\left(\frac{3}{2} \right)^2 = \underline{\hspace{2cm}}$$

20.

$$\left(\frac{7}{8} \right)^{-6} = \underline{\hspace{2cm}}$$

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Fraction Exponents - Answer key

Evaluate exact powers with the selected base and exponent types.

1. $\left(\frac{6}{8}\right)^2 = \frac{9}{16}$

Use exponent 2.
Result: 9/16

2. $\left(\frac{-6}{6}\right)^{-8} = 1$

Use exponent -8: take the reciprocal.
Result: 1

3. $\left(\frac{-5}{2}\right)^3 = \frac{-125}{8}$

Use exponent 3.
Result: -125/8

4. $\left(\frac{5}{6}\right)^{-3} = \frac{216}{125}$

Use exponent -3: take the reciprocal.
Result: 216/125

5. $\left(\frac{-7}{4}\right)^5 = \frac{-16807}{1024}$

Use exponent 5.
Result: -16807/1024

6. $\left(\frac{6}{8}\right)^{-5} = \frac{1024}{243}$

Use exponent -5: take the reciprocal.
Result: 1024/243

7. $\left(\frac{-6}{4}\right)^7 = \frac{-2187}{128}$

Use exponent 7.
Result: -2187/128

8. $\left(\frac{-7}{5}\right)^{-6} = \frac{15625}{117649}$

Use exponent -6: take the reciprocal.
Result: 15625/117649

9. $\left(\frac{-8}{8}\right)^6 = 1$

Use exponent 6.
Result: 1

10. $\left(\frac{6}{6}\right)^{-2} = 1$

Use exponent -2: take the reciprocal.
Result: 1

11. $\left(\frac{5}{2}\right)^5 = \frac{3125}{32}$

Use exponent 5.
Result: 3125/32

12. $\left(\frac{4}{7}\right)^{-7} = \frac{823543}{16384}$

Use exponent -7: take the reciprocal.
Result: 823543/16384

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Fraction Exponents - Answer key

Evaluate exact powers with the selected base and exponent types.

13.

$$\left(\frac{8}{8}\right)^7 = 1$$

Use exponent 7.
Result: 1

14.

$$\left(\frac{6}{8}\right)^{-3} = \frac{64}{27}$$

Use exponent -3: take the reciprocal.
Result: 64/27

15.

$$\left(\frac{6}{4}\right)^7 = \frac{2187}{128}$$

Use exponent 7.
Result: 2187/128

16.

$$\left(\frac{3}{8}\right)^{-5} = \frac{32768}{243}$$

Use exponent -5: take the reciprocal.
Result: 32768/243

17.

$$\left(\frac{-7}{7}\right)^3 = -1$$

Use exponent 3.
Result: -1

18.

$$\left(\frac{6}{7}\right)^{-6} = \frac{117649}{46656}$$

Use exponent -6: take the reciprocal.
Result: 117649/46656

19.

$$\left(\frac{3}{2}\right)^2 = \frac{9}{4}$$

Use exponent 2.
Result: 9/4

20.

$$\left(\frac{7}{8}\right)^{-6} = \frac{262144}{117649}$$

Use exponent -6: take the reciprocal.
Result: 262144/117649