

Name:

Class/Set:

Zero, Negative and Fractional Indices 2

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1: Work out the following:

a) $(\frac{7}{9})^2 =$ _____

b) $(\frac{10}{9})^2 =$ _____

c) $(\frac{8}{9})^3 =$ _____

d) $(\frac{5}{4})^3 =$ _____

e) $(\frac{5}{3})^2 =$ _____

f) $(\frac{6}{7})^2 =$ _____

2: Work out the following:

a) $(\frac{3}{10})^{-3} =$ _____

b) $(\frac{3}{2})^{-3} =$ _____

c) $(\frac{8}{5})^{-3} =$ _____

d) $(\frac{3}{8})^{-2} =$ _____

e) $(\frac{7}{8})^{-2} =$ _____

f) $(\frac{6}{5})^{-3} =$ _____

3: Work out the following:

a) $(\frac{16}{49})^{1/2} =$ _____

b) $(\frac{64}{27})^{1/3} =$ _____

c) $(\frac{16}{81})^{1/2} =$ _____

d) $(\frac{343}{8})^{1/3} =$ _____

e) $(\frac{49}{25})^{1/2} =$ _____

f) $(\frac{27}{343})^{1/3} =$ _____

4: Work out the following:

a) $(\frac{4}{81})^{-1/2} =$ _____

b) $(\frac{125}{8})^{-1/3} =$ _____

c) $(\frac{343}{1000})^{-1/3} =$ _____

d) $(\frac{25}{81})^{-1/2} =$ _____

e) $(\frac{64}{9})^{-1/2} =$ _____

f) $(\frac{512}{343})^{-1/3} =$ _____

Answers: Zero, Negative and Fractional Indices 2

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1: a) $\frac{49}{81}$ b) $\frac{100}{81}$ c) $\frac{512}{729}$ d) $\frac{125}{64}$ e) $\frac{25}{9}$ f) $\frac{36}{49}$

2: a) $\frac{1000}{27}$ b) $\frac{8}{27}$ c) $\frac{125}{512}$ d) $\frac{64}{9}$ e) $\frac{64}{49}$ f) $\frac{125}{216}$

3: a) $\frac{4}{7}$ b) $\frac{4}{3}$ c) $\frac{4}{9}$ d) $\frac{7}{2}$ e) $\frac{7}{5}$ f) $\frac{3}{7}$

4: a) $\frac{9}{2}$ b) $\frac{2}{5}$ c) $\frac{10}{7}$ d) $\frac{9}{5}$ e) $\frac{3}{8}$ f) $\frac{7}{8}$