Comparing Fractions, Decimals and Percentages - Worksheet

Skill

Group A - Comparing fractions, decimals and percentages

Convert to a fraction in its simplest form:

1) 0.2

2) 20%

3) 0.012

Convert to a decimal:

4) $\frac{3}{8}$

5) 37.5%

6) 1.2%

Convert to a percentage:

7) 0.4

8) $\frac{2}{5}$

9) $\frac{3}{250}$

Show in the form of a fraction, decimal and percentage:

10) $1 \div 10$

11) $7 \div 100$

12) $5 \div 200$

Group B - Comparing fractions, decimals and percentages

Are these equivalent or not?

1) 0.5 and 50%

2) 0.5 and $\frac{1}{2}$

3) 0.25 and $\frac{1}{4}$

4) 0.25 and $\frac{2}{5}$

5) 0.9 and 9%

6) 12.5% and $\frac{1}{8}$

Which is of greater value?

7) 0.25 or $\frac{2}{5}$

8) 0.9 or 9%

9) $\frac{1}{8}$ or 15%

10) 60% or 0.6 or $\frac{4}{5}$

11) 66% or $\frac{60}{100}$ or 0.6

12) $0.\dot{3}$ or $\frac{3}{100}$ or 3%

Comparing Fractions, Decimals and Percentages - Worksheet

Group C -Comparing fractions, decimals and percentages

Place in ascending order:

1) $6, 5, 0.5$

2) $0.5, 0.2, 0.8$

3) $5\%, 2\%, 7\%$

4) $\frac{3}{10}, \frac{9}{10}, \frac{7}{10}$

5) $0.4, 0.04, 0.44, 0.404$

6) $10\%, 20\%, \frac{15}{100}$

7) $\frac{2}{3}, \frac{1}{2}, \frac{3}{4}$

8) $\frac{3}{8}, \frac{7}{16}, \frac{2}{4}$

9) $0.20, 22\%, \frac{21}{100}$

10) $22\%, 0.2\%, \frac{42}{200}$

11) $\frac{1}{20}, 0.17, \frac{15}{100}, 10\%$

12) $\frac{7}{500}, 1.6\%, \frac{15}{1000}, 0.017$

Comparing Fractions, Decimals and Percentages - Worksheet

Applied

1) **(a)** Arlo and Hugo have the same amount of water. Arlo drinks 30% of her water. Hugo drinks $\frac{2}{10}$ of his water. Who drank more water?

(b) Albie drank $\frac{7}{10}$ of his water. What percentage of his water did Albie drink?

2) Roshni gets 90% in her Maths test and $\frac{29}{30}$ on her English test. Which test did she do better in?

3) **(a)** Iris and Oscar have the same amount of fruit. Iris eats 55% of her fruit. Oscar eats $\frac{13}{20}$ of his fruit. Who ate more fruit?

(b) Atticus eats $\frac{1}{10}$ of his fruit. What % of his fruit did Attitucs not eat?

4) **(a)** Gary says 18% is greater than 0.2. Is Gary correct? Explain your answer.

(b) Sophie says 0.64 is less than $\frac{26}{40}$. Is Sophie correct? Explain your answer.

Comparing Fractions, Decimals and Percentages - Exam Questions

1) **(a)** Which two of these fractions are equivalent to $\frac{1}{3}$?

$\frac{2}{6}, \frac{5}{12}, \frac{5}{12}, \frac{6}{18}, \frac{11}{30}$

.....

(2)

(b) Write the following in ascending order.

$0.22, \frac{3}{20}, 19\%$

.....

(2)

(4 marks)

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2) **(a)** Which of the below are more than 50%.

$\frac{2}{3}, 0.4, \frac{25}{100}, \frac{4}{5}, 0.055$

.....

(2)

(b) Write 0.055 as a fraction in its simplest form.

.....

(2)

(c) Write 0.055 as a percentage.

.....

(1)

(5 marks)

Comparing Fractions, Decimals and Percentages - Exam Questions

3) **(a)** Write $0.\dot{2}$ as a fraction.

.....

(1)

(b) Write in order of size starting with the smallest.

$0.\dot{2}, \frac{2}{18}, 0.02, \frac{19}{90}, 0.22$

.....

(3)

(4 marks)

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4) **(a)** Write in order of size starting with the smallest.

$60\%, \frac{1}{2}, 0.3, \frac{3}{4}, 0.4$

.....

(2)

(b) Which is the largest of:

$0.3, 0.\dot{3}, 30\%, \frac{34}{100}$

.....

(2)

(4 marks)

Comparing Fractions, Decimals and Percentages - Answers

	Question	Answer
Group A	Skill Questions	
	Convert to a fraction in its simplest form: **1)** 0.2 **2)** 20% **3)** 0.012 Convert to a decimal: **4)** $\frac{3}{8}$ **5)** 37.5% **6)** 1.2% Convert to a percentage: **7)** 0.4 **8)** $\frac{2}{5}$ **9)** $\frac{3}{250}$ Show in the form of a fraction, decimal and percentage: **10)** $1 \div 10$ **11)** $7 \div 100$ **12)** $5 \div 200$	**1)** $\frac{1}{5}$ **2)** $\frac{1}{5}$ **3)** $\frac{3}{250}$ **4)** 0.375 **5)** 0.375 **6)** 0.012 **7)** 40% **8)** 40% **9)** 1.2% **10)** $10\%, 0.1, \frac{1}{10}$ **11)** $7\%, 0.07, \frac{7}{100}$ **12)** $2.5\%, 0.025, \frac{1}{40}$

Comparing Fractions, Decimals and Percentages - Answers

Group B	Are these equivalent or not? **1)** 0.5 and 50% **2)** 0.5 and $\frac{1}{2}$ **3)** 0.25 and $\frac{1}{4}$ **4)** 0.25 and $\frac{2}{5}$ **5)** 0.9 and 9% **6)** 12.5% and $\frac{1}{8}$ Which is of greater value? **7)** 0.25 or $\frac{2}{5}$ **8)** 0.9 or 9% **9)** $\frac{1}{8}$ or 15% **10)** 60% or 0.6 or $\frac{4}{5}$ **11)** 66% or $\frac{60}{100}$ or 0.6 **12)** $0.\dot{3}$ or $\frac{3}{100}$ or 3%	**1)** Yes **2)** Yes **3)** Yes **4)** No **5)** No **6)** Yes **7)** 40% **8)** 40% **9)** 1.2% **10)** $10\%, 0.1, \frac{1}{10}$ **11)** $7\%, 0.07, \frac{7}{100}$ **12)** $2.5\%, 0.025, \frac{1}{40}$

Comparing Fractions, Decimals and Percentages - Answers

Group C	Place in ascending order: **1)** $6, 5, 0.5$ **2)** $0.5, 0.2, 0.7$ **3)** $5\%, 2\%, 7\%$ **4)** $\frac{3}{10}, \frac{9}{10}, \frac{7}{10}$ **5)** $0.4, 0.04, 0.44, 0.404$ **6)** $10\%, 20\%, \frac{15}{100}$ **7)** $\frac{2}{3}, \frac{1}{2}, \frac{3}{4}$ **8)** $\frac{3}{8}, \frac{7}{16}, \frac{2}{4}$ **9)** $0.20, 22\%, \frac{21}{100}$ **10)** $22\%, 0.2\%, \frac{42}{200}$ **11)** $\frac{1}{20}, 0.17, \frac{15}{100}, 10\%$ **12)** $\frac{7}{500}, 1.6\%, \frac{15}{1000}, 0.017$	**1)** $0.5, 5, 6$ **2)** $0.2, 0.5, 0.7$ **3)** $2\%, 5\%, 7\%$ **4)** $\frac{3}{10}, \frac{7}{10}, \frac{9}{10}$ **5)** $0.04, 0.4, 0.404, 0.44$ **6)** $10\%, \frac{15}{100}, 20\%$ **7)** $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}$ **8)** $\frac{3}{8}, \frac{7}{16}, \frac{2}{4}$ **9)** $0.20, \frac{21}{100}, 22\%$ **10)** $0.2\%, \frac{42}{200}, 22\%$ **11)** $\frac{1}{20}, 10\% \frac{15}{100}, 0.17$ **12)** $\frac{7}{500}, \frac{15}{1000}, 1.6\%, 0.017$

Comparing Fractions, Decimals and Percentages - Answers

	Question	Answer
	Applied Questions	
1)	**(a)** Arlo and Hugo have the same amount of water. Arlo drinks 30% of her water. Hugo drinks $\frac{2}{10}$ of his water. Who drank more water? **(b)** Albie drank $\frac{7}{10}$ of his water. What percentage of his water did Albie drink?	**(a)** Arlo $30\% > \frac{2}{10}$ **(b)** 70%
2)	Roshni gets 90% in her Maths test and $\frac{29}{30}$ on her English test. Which test did she do better in?	English $\frac{29}{30} > 90\%$
3)	**(a)** Iris and Oscar have the same amount of fruit. Iris eats 55% of her fruit. Oscar eats $\frac{13}{20}$ of his fruit. Who ate more fruit? **(b)** Atticus eats $\frac{1}{10}$ of his fruit. What % of his fruit did Attitucs not eat?	**(a)** Oscar $\frac{13}{20} > 55\%$ **(b)** 90%
4)	**(a)** Gary says 18% is greater than 0.2. Is Gary correct? Explain your answer. **(b)** Sophie says 0.64 is less than $\frac{26}{40}$. Is Sophie correct? Explain your answer.	**(a)** No $0.2 = 20\%$ Therefore $0.2 > 18\%$ **(b)** Yes $\frac{26}{40} = 0.65$ Therefore $0.64 < \frac{26}{40}$

Comparing Fractions, Decimals and Percentages - Mark Scheme

	Question	Answer	
	Exam Questions		
1) (a)	Which two of these fractions are equivalent to $\frac{1}{3}$? $\frac{2}{6}, \frac{5}{12}, \frac{5}{12}, \frac{6}{18}, \frac{11}{30}$	**(a)** $\frac{2}{6}$ $\frac{6}{18}$	**(2)**
(b)	Write the following in ascending order. $0.22, \frac{3}{20}, 19\%$	**(b)** Attempt to convert each value into the same form (one conversion must be done correct). $\frac{3}{20}, 19\%, 0.22$	**(2)**
2) (a)	Which of the below are more than 50%. $\frac{2}{3}, 0.4, \frac{25}{100}, \frac{4}{5}, 0.055$	**(a)** $\frac{2}{3}$ $\frac{4}{5}$	**(2)**
(b)	Write 0.055 as a fraction in its simplest form.	**(b)** Any correct fraction form seen e.g $\frac{55}{1000}$ $\frac{11}{200}$	**(2)**
(c)	Write 0.055 as a percentage.	**(c)** 5.5%	**(1)**

Comparing Fractions, Decimals and Percentages - Mark Scheme

3)	**(a)**	Write $0.\dot{2}$ as a fraction.	**(a)** $\frac{2}{9}$	**(1)**
	(b)	Write in order of size starting with the smallest. $0.\dot{2}, \frac{2}{18}, 0.02, \frac{19}{90}, 0.22$	**(b)** Attempt to convert each value into the same form (one conversion must be done correct). First and last value is correct. $\frac{2}{18}, \frac{19}{90}, 0.02, 0.\dot{2}$	**(3)**
4)	**(a)**	Write in order of size starting with the smallest. $60\%, \frac{1}{2}, 0.3, \frac{3}{4}, 0.4$	**(a)** Attempt to convert each value into the same form (one conversion must be done correct). $0.3, 0.4, \frac{1}{2}, 60\%, \frac{3}{4}$	**(2)**
	(b)	Which is the largest of: $0.3, 0.\dot{3}, 30\%, \frac{34}{100}$	**(b)** Attempt to convert each value into the same form (one conversion must be done correct). $\frac{34}{100}$	**(2)**