

Percentages: Starters

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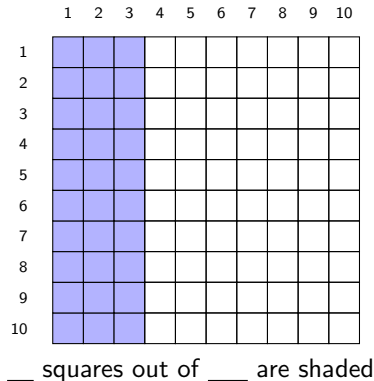
Questions and short answers

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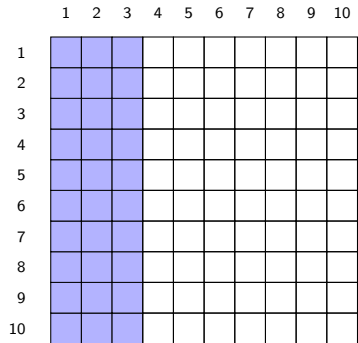
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Starter 1



1. In the diagram how many squares are shaded? ____
2. How many total squares are there? ____
3. $70 + 30 =$ ____
4. $25 \times 4 =$ ____
5. What fraction of the square is shaded:
6. "Per cent" means "out of ____".
7. The shaded fraction = ____
8. Write $\frac{1}{2}$ as a percentage. ____
9. Write $\frac{1}{4}$ as a percentage. ____
10. Write $\frac{5}{4}$ as a percentage. ____

Starter 1



30 squares out of 100 are shaded

1. In the diagram how many squares are shaded? 30
2. How many total squares are there? 100
3. $70 + 30 = 100$
4. $25 \times 4 = 100$
5. What fraction of the square is shaded: $\frac{30}{100}$
6. "Per cent" means "out of 100".
7. The shaded fraction = 30%
8. Write $\frac{1}{2}$ as a percentage. 50%
9. Write $\frac{1}{4}$ as a percentage. 25%
10. Write $\frac{5}{4}$ as a percentage. 125%

Worked Solution: Starter 1, Question 1

Question: In the diagram how many squares are shaded?

Worked Solution: The shaded region is three full columns of the grid. Each column has 10 squares, so the number shaded is 3×10 , which is ____.

Worked Solution: Starter 1, Question 1

Question: In the diagram how many squares are shaded?

Worked Solution: The shaded region is three full columns of the grid. Each column has 10 squares, so the number shaded is 3×10 , which is 30.

Worked Solution: Starter 1, Question 2

Question: How many total squares are there?

Worked Solution: The grid is 10 squares by 10 squares, so the total number of squares is 10×10 , which is ____.

Worked Solution: Starter 1, Question 2

Question: How many total squares are there?

Worked Solution: The grid is 10 squares by 10 squares, so the total number of squares is 10×10 , which is 100.

Worked Solution: Starter 1, Question 3

Question: $70 + 30 = ?$

Worked Solution: Add 70 and 30. The sum is ____.

Worked Solution: Starter 1, Question 3

Question: $70 + 30 = ?$

Worked Solution: Add 70 and 30. The sum is 100.

Worked Solution: Starter 1, Question 4

Question: $25 \times 4 = ?$

Worked Solution: Multiplying 25 by 4 means four quarters of 25.
The product is ____.

Worked Solution: Starter 1, Question 4

Question: $25 \times 4 = ?$

Worked Solution: Multiplying 25 by 4 means four quarters of 25.
The product is 100.

Worked Solution: Starter 1, Question 5

Question: What fraction of the square is shaded?

Worked Solution: There are 30 shaded squares out of 100 total squares, so the shaded fraction is $\frac{30}{100}$.

Worked Solution: Starter 1, Question 5

Question: What fraction of the square is shaded?

Worked Solution: There are 30 shaded squares out of 100 total squares, so the shaded fraction is $\frac{30}{100}$.

Worked Solution: Starter 1, Question 6

Question: What does “per cent” mean?

Worked Solution: The word “cent” refers to one hundred, so “per cent” means _____.

Worked Solution: Starter 1, Question 6

Question: What does “per cent” mean?

Worked Solution: The word “cent” refers to one hundred, so “per cent” means **out of 100**.

Worked Solution: Starter 1, Question 7

Question: The shaded fraction equals what percentage?

Worked Solution: The shaded part is 30 out of 100, so as a percentage it is ____.

Worked Solution: Starter 1, Question 7

Question: The shaded fraction equals what percentage?

Worked Solution: The shaded part is 30 out of 100, so as a percentage it is 30%.

Worked Solution: Starter 1, Question 8

Question: Write $\frac{1}{2}$ as a percentage.

Worked Solution: Since $100 \div 2 = 50$, we have $\frac{1}{2} = \frac{50}{100}$.
Therefore the percentage is ____.

Worked Solution: Starter 1, Question 8

Question: Write $\frac{1}{2}$ as a percentage.

Worked Solution: Since $100 \div 2 = 50$, we have $\frac{1}{2} = \frac{50}{100}$.
Therefore the percentage is **50%**.

Worked Solution: Starter 1, Question 9

Question: Write $\frac{1}{4}$ as a percentage.

Worked Solution: Since $100 \div 4 = 25$, we have $\frac{1}{4} = \frac{25}{100}$.
Therefore the percentage is ____.

Worked Solution: Starter 1, Question 9

Question: Write $\frac{1}{4}$ as a percentage.

Worked Solution: Since $100 \div 4 = 25$, we have $\frac{1}{4} = \frac{25}{100}$.
Therefore the percentage is **25%**.

Worked Solution: Starter 1, Question 10

Question: Write $\frac{5}{4}$ as a percentage.

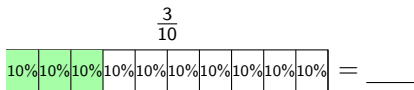
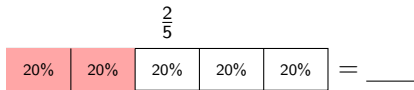
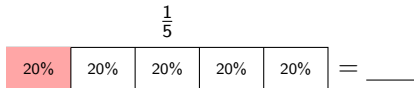
Worked Solution: Since $100 \div 4 = 25$, we have $\frac{5}{4} = \frac{125}{100}$.
Therefore the percentage is _____.

Worked Solution: Starter 1, Question 10

Question: Write $\frac{5}{4}$ as a percentage.

Worked Solution: Since $100 \div 4 = 25$, we have $\frac{5}{4} = \frac{125}{100}$.
Therefore the percentage is **125%**.

Starter 2



1. $3 \times 20 = \underline{\hspace{1cm}}$

6. $\frac{?}{10} = 70\%$

2. $7 \times 10 = \underline{\hspace{1cm}}$

7. $\frac{1}{?} = 25\%$

3. $\frac{1}{5} = \underline{\hspace{1cm}}$

8. $\frac{2}{25} = \underline{\hspace{1cm}}$

4. $\frac{2}{5} = \underline{\hspace{1cm}}$

9. $\frac{7}{8} = \underline{\hspace{1cm}}$

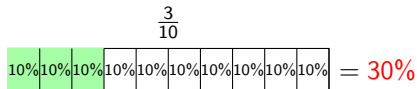
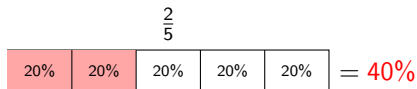
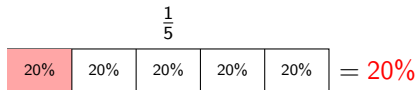
5. $\frac{3}{10} = \underline{\hspace{1cm}}$

10. $\frac{5}{3} = \underline{\hspace{1cm}}$

11. Complete the conversion:

$$\frac{?}{4} = \frac{75}{?} = 75\%$$

Starter 2



1. $3 \times 20 = 60$

6. $\frac{7}{10} = 70\%$

2. $7 \times 10 = 70$

3. $\frac{1}{5} = 20\%$

7. $\frac{1}{4} = 25\%$

4. $\frac{2}{5} = 40\%$

8. $\frac{2}{25} = 8\%$

5. $\frac{3}{10} = 30\%$

9. $\frac{7}{8} = 87.5\%$

10. $\frac{5}{3} = 166.\dot{6}\%$

11. Complete the conversion:

$$\frac{3}{4} = \frac{75}{100} = 75\%$$

Worked Solution: Starter 2, Question 1

Question: $3 \times 20 = ?$

Worked Solution: Multiply 3 by 20. The product is ____.

Worked Solution: Starter 2, Question 1

Question: $3 \times 20 = ?$

Worked Solution: Multiply 3 by 20. The product is 60.

Worked Solution: Starter 2, Question 2

Question: $7 \times 10 = ?$

Worked Solution: Multiply 7 by 10. The product is ____.

Worked Solution: Starter 2, Question 2

Question: $7 \times 10 = ?$

Worked Solution: Multiply 7 by 10. The product is 70.

Worked Solution: Starter 2, Question 3

Question: Write $\frac{1}{5}$ as a percentage.

Worked Solution: Since $100 \div 5 = 20$, we have $\frac{1}{5} = \frac{20}{100}$.
Therefore the percentage is ____.

Worked Solution: Starter 2, Question 3

Question: Write $\frac{1}{5}$ as a percentage.

Worked Solution: Since $100 \div 5 = 20$, we have $\frac{1}{5} = \frac{20}{100}$.
Therefore the percentage is **20%**.

Worked Solution: Starter 2, Question 4

Question: Write $\frac{2}{5}$ as a percentage.

Worked Solution: Since $\frac{1}{5} = \frac{20}{100}$, we have $\frac{2}{5} = \frac{40}{100}$. Therefore the percentage is ____.

Worked Solution: Starter 2, Question 4

Question: Write $\frac{2}{5}$ as a percentage.

Worked Solution: Since $\frac{1}{5} = \frac{20}{100}$, we have $\frac{2}{5} = \frac{40}{100}$. Therefore the percentage is 40%.

Worked Solution: Starter 2, Question 5

Question: Write $\frac{3}{10}$ as a percentage.

Worked Solution: Since $100 \div 10 = 10$, we have $\frac{3}{10} = \frac{30}{100}$.
Therefore the percentage is ____.

Worked Solution: Starter 2, Question 5

Question: Write $\frac{3}{10}$ as a percentage.

Worked Solution: Since $100 \div 10 = 10$, we have $\frac{3}{10} = \frac{30}{100}$.
Therefore the percentage is **30%**.

Worked Solution: Starter 2, Question 6

Question: $\frac{?}{10} = 70\%$. Find the missing numerator.

Worked Solution: Write 70% as $\frac{70}{100}$. Simplify by dividing numerator and denominator by 10: $\frac{70}{100} = \frac{7}{10}$. The missing numerator is $\underline{\quad}$.

Worked Solution: Starter 2, Question 6

Question: $\frac{?}{10} = 70\%$. Find the missing numerator.

Worked Solution: Write 70% as $\frac{70}{100}$. Simplify by dividing numerator and denominator by 10: $\frac{70}{100} = \frac{7}{10}$. The missing numerator is 7.

Worked Solution: Starter 2, Question 7

Question: $\frac{1}{?} = 25\%$. Find the missing denominator.

Worked Solution: Write 25% as $\frac{25}{100}$. Simplify by dividing numerator and denominator by 25: $\frac{25}{100} = \frac{1}{4}$. The missing denominator is 4.

Worked Solution: Starter 2, Question 7

Question: $\frac{1}{?} = 25\%$. Find the missing denominator.

Worked Solution: Write 25% as $\frac{25}{100}$. Simplify by dividing numerator and denominator by 25: $\frac{25}{100} = \frac{1}{4}$. The missing denominator is 4.

Worked Solution: Starter 2, Question 8

Question: Write $\frac{2}{25}$ as a percentage.

Worked Solution: Since $100 \div 25 = 4$, multiply numerator and denominator by 4: $\frac{2}{25} = \frac{8}{100}$. Therefore the percentage is ____.

Worked Solution: Starter 2, Question 8

Question: Write $\frac{2}{25}$ as a percentage.

Worked Solution: Since $100 \div 25 = 4$, multiply numerator and denominator by 4: $\frac{2}{25} = \frac{8}{100}$. Therefore the percentage is 8%.

Worked Solution: Starter 2, Question 9

Question: Write $\frac{7}{8}$ as a percentage.

Worked Solution: Since $100 \div 8 = 12.5$, multiply numerator and denominator by 12.5: $\frac{7}{8} = \frac{87.5}{100}$. Therefore the percentage is _____.

Worked Solution: Starter 2, Question 9

Question: Write $\frac{7}{8}$ as a percentage.

Worked Solution: Since $100 \div 8 = 12.5$, multiply numerator and denominator by 12.5: $\frac{7}{8} = \frac{87.5}{100}$. Therefore the percentage is **87.5%**.

Worked Solution: Starter 2, Question 10

Question: Write $\frac{5}{3}$ as a percentage.

Worked Solution: $\frac{5}{3} = 1.666\dots$ To convert to a percentage, multiply by 100: $1.666\dots \times 100 = 166.666\dots$ Therefore the percentage is _____.

Worked Solution: Starter 2, Question 10

Question: Write $\frac{5}{3}$ as a percentage.

Worked Solution: $\frac{5}{3} = 1.666\dots$ To convert to a percentage, multiply by 100: $1.666\dots \times 100 = 166.666\dots$ Therefore the percentage is **166.6%**.

Worked Solution: Starter 2, Question 11

Question: Complete the conversion: $\frac{?}{4} = \frac{75}{?} = 75\%$.

Worked Solution: Write 75% as $\frac{75}{100}$. Simplify by dividing numerator and denominator by 25: $\frac{75}{100} = \frac{3}{4}$. The missing numerator is _ and the missing denominator is ____.

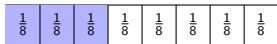
Worked Solution: Starter 2, Question 11

Question: Complete the conversion: $\frac{?}{4} = \frac{75}{?} = 75\%$.

Worked Solution: Write 75% as $\frac{75}{100}$. Simplify by dividing numerator and denominator by 25: $\frac{75}{100} = \frac{3}{4}$. The missing numerator is 3 and the missing denominator is 100.

Starter 3

$$\frac{1}{8} = 12.5\%$$



Questions

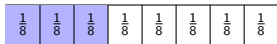
1. Write $\frac{1}{2}$ as a percentage. _____
2. Write $\frac{3}{10}$ as a percentage. _____
3. What does “per cent” mean?

4. Convert $\frac{3}{8}$ to a percentage. _____
5. What percentage of the second bar is shaded orange? _____
6. Convert $\frac{2}{3}$ to a percentage. _____
7. What is $\frac{4}{3}$ as a percentage, round your percentage to one decimal place.

8. What fraction does 0.1% equal?
9. What fraction does 0.003% equal?

Starter 3

$$\frac{1}{8} = 12.5\%$$



Questions

1. Write $\frac{1}{2}$ as a percentage. 50%
2. Write $\frac{3}{10}$ as a percentage. 30%
3. What does “per cent” mean? out of 100
4. Convert $\frac{3}{8}$ to a percentage. 37.5%
5. What percentage of the second bar is shaded orange? 33.3%
6. Convert $\frac{2}{3}$ to a percentage. 66.6%
7. What is $\frac{4}{3}$ as a percentage, round your percentage to one decimal place. 133.3%
8. What fraction does 0.1% equal? $\frac{1}{1000}$
9. What fraction does 0.003% equal? $\frac{3}{100,000}$

Worked Solution: Starter 3, Question 1

Question: Write $\frac{1}{2}$ as a percentage.

Worked Solution: $\frac{1}{2} = \frac{50}{100}$, so as a percentage it is ____.

Worked Solution: Starter 3, Question 1

Question: Write $\frac{1}{2}$ as a percentage.

Worked Solution: $\frac{1}{2} = \frac{50}{100}$, so as a percentage it is 50%.

Worked Solution: Starter 3, Question 2

Question: Write $\frac{3}{10}$ as a percentage.

Worked Solution: $\frac{3}{10} = \frac{30}{100}$, so as a percentage it is ____.

Worked Solution: Starter 3, Question 2

Question: Write $\frac{3}{10}$ as a percentage.

Worked Solution: $\frac{3}{10} = \frac{30}{100}$, so as a percentage it is 30%.

Worked Solution: Starter 3, Question 3

Question: What does “per cent” mean?

Worked Solution: “Cent” means one hundred, so “per cent” means _____.

Worked Solution: Starter 3, Question 3

Question: What does “per cent” mean?

Worked Solution: “Cent” means one hundred, so “per cent” means **out of 100**.

Worked Solution: Starter 3, Question 4

Question: Convert $\frac{3}{8}$ to a percentage.

Worked Solution: The diagram shows that $\frac{1}{8} = 12.5\%$. Therefore $\frac{3}{8} = 3 \times 12.5\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 3, Question 4

Question: Convert $\frac{3}{8}$ to a percentage.

Worked Solution: The diagram shows that $\frac{1}{8} = 12.5\%$. Therefore $\frac{3}{8} = 3 \times 12.5\% = 37.5\%$.

Worked Solution: Starter 3, Question 5

Question: What percentage of the second bar is shaded orange?

Worked Solution: The second bar is divided into 3 equal parts, and 1 part is shaded. So the shaded fraction is $\frac{1}{3}$, which is _____.

Worked Solution: Starter 3, Question 5

Question: What percentage of the second bar is shaded orange?

Worked Solution: The second bar is divided into 3 equal parts, and 1 part is shaded. So the shaded fraction is $\frac{1}{3}$, which is 33.3%.

Worked Solution: Starter 3, Question 6

Question: Convert $\frac{2}{3}$ to a percentage.

Worked Solution: $\frac{1}{3} = 33.\dot{3}\%$, so $\frac{2}{3} = 2 \times 33.\dot{3}\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 3, Question 6

Question: Convert $\frac{2}{3}$ to a percentage.

Worked Solution: $\frac{1}{3} = 33.\dot{3}\%$, so $\frac{2}{3} = 2 \times 33.\dot{3}\% = 66.\dot{6}\%$.

Worked Solution: Starter 3, Question 7

Question: What is $\frac{4}{3}$ as a percentage, rounded to one decimal place?

Worked Solution: $\frac{4}{3} = 1.333\dots$ Multiplying by 100 gives $133.333\dots\%$. Rounded to one decimal place, this is _____.

Worked Solution: Starter 3, Question 7

Question: What is $\frac{4}{3}$ as a percentage, rounded to one decimal place?

Worked Solution: $\frac{4}{3} = 1.333\dots$ Multiplying by 100 gives $133.333\dots\%$. Rounded to one decimal place, this is **133.3%**.

Worked Solution: Starter 3, Question 8

Question: What fraction does 0.1% equal?

Worked Solution: $0.1\% = \frac{0.1}{100}$. Multiply numerator and denominator by 10 to clear the decimal. This gives .

Worked Solution: Starter 3, Question 8

Question: What fraction does 0.1% equal?

Worked Solution: $0.1\% = \frac{0.1}{100}$. Multiply numerator and denominator by 10 to clear the decimal. This gives $\frac{1}{1000}$.

Worked Solution: Starter 3, Question 9

Question: What fraction does 0.003% equal?

Worked Solution: $0.003\% = \frac{0.003}{100}$. Multiply numerator and denominator by 1000. This gives .

Worked Solution: Starter 3, Question 9

Question: What fraction does 0.003% equal?

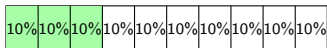
Worked Solution: $0.003\% = \frac{0.003}{100}$. Multiply numerator and denominator by 1000. This gives $\frac{3}{100000}$.

Starter 4

1. $50\% + 50\% = \underline{\hspace{2cm}}$ 2. $25\% + 25\% = \underline{\hspace{2cm}}$

3. Write $\frac{1}{5}$ as a percentage: $\underline{\hspace{2cm}}$

4. Complete the sum represented by the diagram:



$$3 \times ?\% + \frac{1}{?} = 30\% + 25\% = 55\%$$



5. $20\% + \frac{3}{10} = \underline{\hspace{2cm}}$ 8. Which is larger: $\frac{3}{8}$ or 40%?



6. $\frac{1}{2} + 15\% = \underline{\hspace{2cm}}$

7. $45\% + \frac{1}{5} = \underline{\hspace{2cm}}$ 9. $\frac{2}{5} + \frac{3}{10} + 20\% = \underline{\hspace{2cm}}$

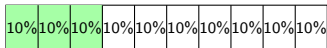
10. A class finishes $\frac{1}{3}$ of a project, then 20% more. What percentage have they completed in total?

Starter 4

1. $50\% + 50\% = 100\%$ 2. $25\% + 25\% = 50\%$

3. Write $\frac{1}{5}$ as a percentage: 20%

4. Complete the sum represented by the diagram:



$$3 \times 10\% + \frac{1}{4} = 30\% + 25\% = 55\%$$



5. $20\% + \frac{3}{10} = 50\%$ 8. Which is larger: $\frac{3}{8}$



6. $\frac{1}{2} + 15\% = 65\%$ or 40%? 40%
($\frac{3}{8} = 37.5\%$)

7. $45\% + \frac{1}{5} = 65\%$ 9. $\frac{2}{5} + \frac{3}{10} + 20\% = 90\%$

10. A class finishes $\frac{1}{3}$ of a project, then 20% more. What percentage have they completed in total? $33.\dot{3}\% + 20\% = 53.\dot{3}\%$

Worked Solution: Starter 4, Question 1

Question: $50\% + 50\% = ?$

Worked Solution: Two lots of 50% make one whole, so the sum is ____.

Worked Solution: Starter 4, Question 1

Question: $50\% + 50\% = ?$

Worked Solution: Two lots of 50% make one whole, so the sum is 100%.

Worked Solution: Starter 4, Question 2

Question: $25\% + 25\% = ?$

Worked Solution: Two lots of 25% make 50%, so the sum is
_____.

Worked Solution: Starter 4, Question 2

Question: $25\% + 25\% = ?$

Worked Solution: Two lots of 25% make 50%, so the sum is 50%.

Worked Solution: Starter 4, Question 3

Question: Write $\frac{1}{5}$ as a percentage.

Worked Solution: $\frac{1}{5} = \frac{20}{100}$, so as a percentage it is ____.

Worked Solution: Starter 4, Question 3

Question: Write $\frac{1}{5}$ as a percentage.

Worked Solution: $\frac{1}{5} = \frac{20}{100}$, so as a percentage it is 20%.

Worked Solution: Starter 4, Question 4

Question: Complete the sum represented by the diagram:

$$3 \times ?\% + \frac{1}{?} = 30\% + 25\% = 55\%.$$

Worked Solution: The first bar is divided into 10 equal slabs, so each slab is 10%. Thus $3 \times 10\% = 30\%$. The second bar is divided into 4 equal quarters, so the fraction is $\frac{1}{4}$. The missing numbers are __ and __.

Worked Solution: Starter 4, Question 4

Question: Complete the sum represented by the diagram:

$$3 \times ?\% + \frac{1}{?} = 30\% + 25\% = 55\%.$$

Worked Solution: The first bar is divided into 10 equal slabs, so each slab is 10%. Thus $3 \times 10\% = 30\%$. The second bar is divided into 4 equal quarters, so the fraction is $\frac{1}{4}$. The missing numbers are 10 and 4.

Worked Solution: Starter 4, Question 5

Question: $20\% + \frac{3}{10} = ?$

Worked Solution: $\frac{3}{10} = 30\%$. Therefore $20\% + 30\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 4, Question 5

Question: $20\% + \frac{3}{10} = ?$

Worked Solution: $\frac{3}{10} = 30\%$. Therefore $20\% + 30\% = 50\%$.

Worked Solution: Starter 4, Question 6

Question: $\frac{1}{2} + 15\% = ?$

Worked Solution: $\frac{1}{2} = 50\%$. Therefore $50\% + 15\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 4, Question 6

Question: $\frac{1}{2} + 15\% = ?$

Worked Solution: $\frac{1}{2} = 50\%$. Therefore $50\% + 15\% = 65\%$.

Worked Solution: Starter 4, Question 7

Question: $45\% + \frac{1}{5} = ?$

Worked Solution: $\frac{1}{5} = 20\%$. Therefore $45\% + 20\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 4, Question 7

Question: $45\% + \frac{1}{5} = ?$

Worked Solution: $\frac{1}{5} = 20\%$. Therefore $45\% + 20\% = 65\%$.

Worked Solution: Starter 4, Question 8

Question: Which is larger: $\frac{3}{8}$ or 40%?

Worked Solution: $\frac{3}{8} = 37.5\%$. Since $37.5\% < 40\%$, the larger value is ____.

Worked Solution: Starter 4, Question 8

Question: Which is larger: $\frac{3}{8}$ or 40%?

Worked Solution: $\frac{3}{8} = 37.5\%$. Since $37.5\% < 40\%$, the larger value is 40%.

Worked Solution: Starter 4, Question 9

Question: $\frac{2}{5} + \frac{3}{10} + 20\% = ?$

Worked Solution: $\frac{2}{5} = 40\%$, $\frac{3}{10} = 30\%$, and 20% remains 20% .
Adding gives $40\% + 30\% + 20\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 4, Question 9

Question: $\frac{2}{5} + \frac{3}{10} + 20\% = ?$

Worked Solution: $\frac{2}{5} = 40\%$, $\frac{3}{10} = 30\%$, and 20% remains 20% .
Adding gives $40\% + 30\% + 20\% = 90\%$.

Worked Solution: Starter 4, Question 10

Question: A class finishes $\frac{1}{3}$ of a project, then 20% more. What percentage have they completed in total?

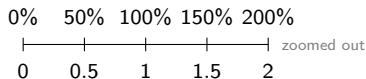
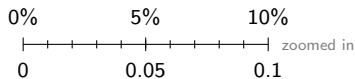
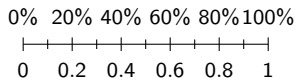
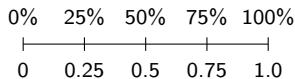
Worked Solution: $\frac{1}{3} = 33.\dot{3}\%$. After completing 20% more, the total is $33.\dot{3}\% + 20\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 4, Question 10

Question: A class finishes $\frac{1}{3}$ of a project, then 20% more. What percentage have they completed in total?

Worked Solution: $\frac{1}{3} = 33.\dot{3}\%$. After completing 20% more, the total is $33.\dot{3}\% + 20\% = 53.\dot{3}\%$.

Starter 5



1. $0.6 + 0.4 = \underline{\quad}$ 2. $0.25 \times 4 = \underline{\quad}$

3. Write $\frac{3}{10}$ as a decimal: $\underline{\quad}$

4. Write $\frac{7}{100}$ as a decimal: $\underline{\quad}$

5. $0.5 = \underline{\quad}$ 9. $0.125 = \underline{\quad}$

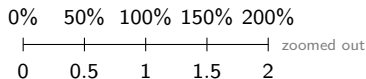
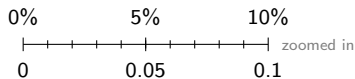
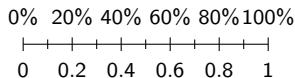
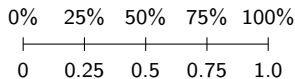
6. $0.3 = \underline{\quad}$ 10. $1.4 = \underline{\quad}$

7. $0.75 = \underline{\quad}$ 11. $0.005 = \underline{\quad}$

8. $0.08 = \underline{\quad}$ 12. $0.92 \rightarrow \underline{\quad}$

13. *Challenge:* Convert 0.0625 to a %, then write as a fraction in simplest form.

Starter 5



1. $0.6 + 0.4 = 1$ 2. $0.25 \times 4 = 1$

3. Write $\frac{3}{10}$ as a decimal: 0.3

4. Write $\frac{7}{100}$ as a decimal: 0.07

5. $0.5 = 50\%$ 9. $0.125 = 12.5\%$

6. $0.3 = 30\%$ 10. $1.4 = 140\%$

7. $0.75 = 75\%$ 11. $0.005 = 0.5\%$

8. $0.08 = 8\%$ 12. $0.92 \rightarrow 92\%$

13. *Challenge:* Convert 0.0625 to a %, then write as a fraction in simplest form. $6.25\% = \frac{1}{16}$

Worked Solution: Starter 5, Question 1

Question: $0.6 + 0.4 = ?$

Worked Solution: 0.6 is 6 tenths and 0.4 is 4 tenths, so together they make 10 tenths. This is 1.

Worked Solution: Starter 5, Question 1

Question: $0.6 + 0.4 = ?$

Worked Solution: 0.6 is 6 tenths and 0.4 is 4 tenths, so together they make 10 tenths. This is **1**.

Worked Solution: Starter 5, Question 2

Question: $0.25 \times 4 = ?$

Worked Solution: $0.25 = \frac{1}{4}$, and four quarters make one whole.
Therefore the product is $\underline{\hspace{1cm}}$.

Worked Solution: Starter 5, Question 2

Question: $0.25 \times 4 = ?$

Worked Solution: $0.25 = \frac{1}{4}$, and four quarters make one whole.
Therefore the product is **1**.

Worked Solution: Starter 5, Question 3

Question: Write $\frac{3}{10}$ as a decimal.

Worked Solution: $\frac{3}{10}$ means 3 tenths, which is ____.

Worked Solution: Starter 5, Question 3

Question: Write $\frac{3}{10}$ as a decimal.

Worked Solution: $\frac{3}{10}$ means 3 tenths, which is 0.3.

Worked Solution: Starter 5, Question 4

Question: Write $\frac{7}{100}$ as a decimal.

Worked Solution: $\frac{7}{100}$ means 7 hundredths, which is ____.

Worked Solution: Starter 5, Question 4

Question: Write $\frac{7}{100}$ as a decimal.

Worked Solution: $\frac{7}{100}$ means 7 hundredths, which is 0.07.

Worked Solution: Starter 5, Question 5

Question: $0.5 = ?$

Worked Solution: To convert a decimal to a percentage, multiply by 100%. Thus $0.5 \times 100\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 5, Question 5

Question: $0.5 = ?$

Worked Solution: To convert a decimal to a percentage, multiply by 100%. Thus $0.5 \times 100\% = 50\%$.

Worked Solution: Starter 5, Question 6

Question: $0.3 = ?$

Worked Solution: Multiply by 100%: $0.3 \times 100\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 5, Question 6

Question: $0.3 = ?$

Worked Solution: Multiply by 100%: $0.3 \times 100\% = 30\%$.

Worked Solution: Starter 5, Question 7

Question: $0.75 = ?$

Worked Solution: Multiply by 100%: $0.75 \times 100\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 5, Question 7

Question: $0.75 = ?$

Worked Solution: Multiply by 100%: $0.75 \times 100\% = 75\%$.

Worked Solution: Starter 5, Question 8

Question: $0.08 = ?$

Worked Solution: Multiply by 100%: $0.08 \times 100\% = \underline{\hspace{1cm}}$.

Worked Solution: Starter 5, Question 8

Question: $0.08 = ?$

Worked Solution: Multiply by 100%: $0.08 \times 100\% = 8\%$.

Worked Solution: Starter 5, Question 9

Question: $0.125 = ?$

Worked Solution: Multiply by 100%: $0.125 \times 100\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 5, Question 9

Question: $0.125 = ?$

Worked Solution: Multiply by 100%: $0.125 \times 100\% = 12.5\%$.

Worked Solution: Starter 5, Question 10

Question: $1.4 = ?$

Worked Solution: Multiply by 100%: $1.4 \times 100\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 5, Question 10

Question: $1.4 = ?$

Worked Solution: Multiply by 100%: $1.4 \times 100\% = 140\%$.

Worked Solution: Starter 5, Question 11

Question: $0.005 = ?$

Worked Solution: Multiply by 100%: $0.005 \times 100\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 5, Question 11

Question: $0.005 = ?$

Worked Solution: Multiply by 100%: $0.005 \times 100\% = 0.5\%$.

Worked Solution: Starter 5, Question 12

Question: $0.92 \rightarrow ?$

Worked Solution: Multiply by 100%: $0.92 \times 100\% = \underline{\hspace{2cm}}$.

Worked Solution: Starter 5, Question 12

Question: $0.92 \rightarrow ?$

Worked Solution: Multiply by 100%: $0.92 \times 100\% = 92\%$.

Worked Solution: Starter 5, Question 13

Question: Convert 0.0625 to a percentage, then write as a fraction in simplest form.

Worked Solution: $0.0625 \times 100\% = \underline{\hspace{2cm}}$. As a fraction,
 $6.25\% = \frac{6.25}{100} = \frac{625}{10000}$, which simplifies to $\underline{\hspace{2cm}}$.

Worked Solution: Starter 5, Question 13

Question: Convert 0.0625 to a percentage, then write as a fraction in simplest form.

Worked Solution: $0.0625 \times 100\% = 6.25\%$. As a fraction,
 $6.25\% = \frac{6.25}{100} = \frac{625}{10000}$, which simplifies to $\frac{1}{16}$.