WORKSHEET 25
Linking Common Benchmarks - Fractions, Decimals & Percentages
Year 5 Mathematics — Fractions Strand
Australian Curriculum v9.0 — AC9M5N04

Name: _____   **Date:** _____

Section 1: Fluency - Simple Conversion Table

Question 1: Complete the conversion table below:

Fraction	Decimal	Percentage
$\frac{1}{2}$		
	0.25	
		100%
$\frac{3}{4}$		

Answer: _____

Question 2: Write

$$\frac{1}{4}$$

as a decimal and a percentage.

Answer: _____

Question 3: Convert 0.5 to a fraction and a percentage.

Answer: _____

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Question 4: What is 50% as a decimal and a fraction?
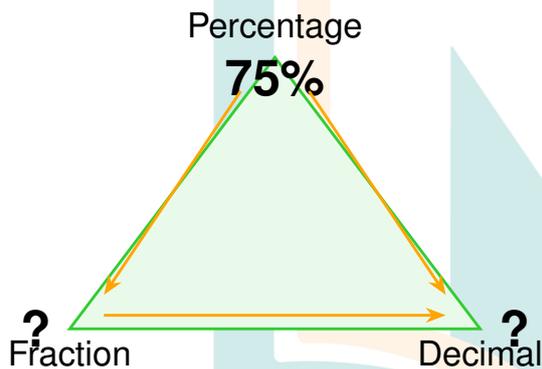
Answer: _____

Question 5: Complete:

$$\frac{1}{10}$$

= _____ (decimal) = _____ (percentage)

Answer: _____

Question 6: Look at the conversion triangle. Fill in the missing values.

Percentage

75%

?
Fraction

?
Decimal

Answer: _____

Question 7: Write

$$\frac{1}{5}$$

as a decimal and a percentage.

Answer: _____

Question 8: Convert 0.1 to a fraction and a percentage.

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Answer: _____

Triple Threat Toucan Says:

"You're a Triple Link Legend!"

Joke Time: Why was the decimal so popular at the party? Because it always made a point!

Section 2: Reasoning - Matching Equivalents

Question 9: Draw lines to match each fraction with its decimal AND percentage partner.

$\frac{3}{4}$

$\frac{1}{2}$

$\frac{1}{4}$

0.25

0.5

0.75

25%

50%

75%

Answer: _____

Question 10: Which is NOT equal to the others? Circle it.

0.5   5%

$\frac{1}{2}$

Answer: _____

Question 11: True or False:

$\frac{2}{10}$

= 0.2 = 20%

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Answer: _____

Question 12: Which group shows equivalent values?

a)

$$\frac{1}{5}$$

, 0.5, 50%   b)

$$\frac{3}{10}$$

, 0.3, 30%   c)

$$\frac{1}{4}$$

, 0.4, 40%

Answer: _____

Question 13: Complete the equivalent set: 0.75 = _____ = _____
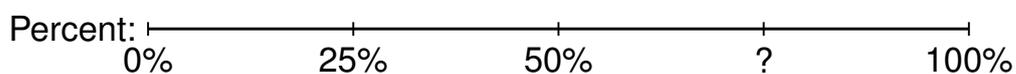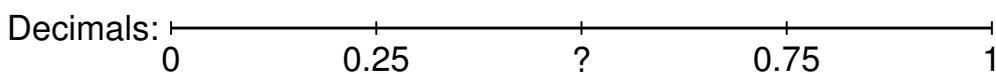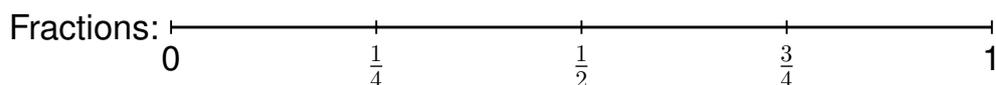
Answer: _____

Question 14: Are these equivalent?

$$\frac{1}{100}$$

and 1%? Explain.

Answer: _____

Question 15: Look at the triple number line. Which values are aligned?

Fractions:	0	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1
Decimals:	0	0.25	?	0.75	1
Percent:	0%	25%	50%	?	100%

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Answer: _____

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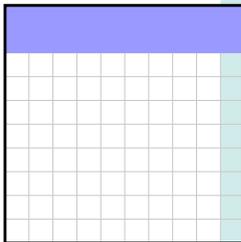
Conversion Chameleon Says:

"You're a Conversion Captain!"

Joke Time: Why did the fraction join a band?
It wanted to be in perfect harmony with decimals and percentages!
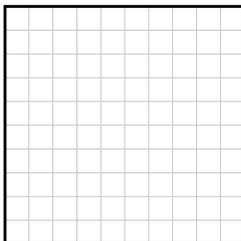
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Section 3: Challenge - Shaded Parts

Question 16: Look at the 10×10 grid. Write the shaded part as a fraction, decimal, and percentage.

Fraction: _____ Decimal: _____ Percentage: _____

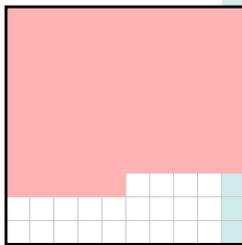**Question 17:** Shade 45% of this grid.

Answer: _____

Question 18: If 0.3 of a grid is shaded, what percentage is shaded?

Answer: _____

Question 19: A grid has 60% shaded. Write this as a fraction in simplest form.

Answer: _____

Question 20: Look at this partially shaded grid. Complete all three forms.

Fraction: _____ Decimal: _____ Percentage: _____

Question 21: Challenge: If

$$\frac{7}{10}$$

of a grid is NOT shaded, what percentage IS shaded?

Answer: _____

Question 22: A grid shows 0.85 shaded. Express the UNshaded part as a percentage.

Answer: _____

Grid Master Giraffe Says:

"You're a Shading Superstar!"

Joke Time: Why did the percentage go to art class?
To learn how to shade properly!

Excellent work! Check your answers on the next page.

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Section 1: Fluency - Simple Conversion Table

1. Row 1: 0.5, 50%; Row 2:

$$\frac{1}{4}$$

, 25%; Row 3:

$$\frac{1}{1}$$

or 1, 1 or 1.0; Row 4: 0.75, 75%

2. 0.25 and 25%

3.

$$\frac{1}{2}$$

and 50%

4. 0.5 and

$$\frac{1}{2}$$

5. 0.1 and 10%

6. Fraction:

$$\frac{3}{4}$$

, Decimal: 0.75

7. 0.2 and 20%

8.

$$\frac{1}{10}$$

and 10%

Section 2: Reasoning - Matching Equivalents

9.

$$\frac{3}{4}$$

matches 0.75 and 75%;

$$\frac{1}{2}$$

matches 0.5 and 50%;

$$\frac{1}{4}$$

8

matches 0.25 and 25%
10. 5% (the others equal 50% or

$$\frac{1}{2}$$

)
11. True
12. b)

$$\frac{3}{10}$$

, 0.3, 30%
13.

$$\frac{3}{4}$$

and 75%
14. Yes, they are equivalent (1 out of 100 equals 1%)
15. Missing decimal: 0.5; Missing percentage: 75%

Section 3: Challenge - Shaded Parts

16. Fraction:

$$\frac{20}{100}$$

or

$$\frac{1}{5}$$

; Decimal: 0.2 or 0.20; Percentage: 20%
17. Shade 45 squares (students should shade 45 out of 100 squares)
18. 30%
19.

$$\frac{3}{5}$$

(

$$\frac{60}{100}$$

simplified)
20. Fraction:

$$\frac{75}{100}$$

or

$$\frac{3}{4}$$

; Decimal: 0.75; Percentage: 75%
21. 30% (if

$$\frac{7}{10}$$

9

is NOT shaded, then

$$\frac{3}{10}$$

IS shaded = 30%)

22. 15% (1 - 0.85 = 0.15 = 15%)

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WORKSHEET 26
Real-World Conversions and Comparisons
Year 5 Mathematics — Fractions Strand
Australian Curriculum v9.0 — AC9M5N04

Name: _____   **Date:** _____

Section 1: Fluency - Writing Tenths

Question 1: Write

$$\frac{7}{10}$$

as a decimal and a percentage.

Answer: _____

Question 2: Convert 0.9 into a percentage and a fraction.

Answer: _____

Question 3: Write

$$\frac{3}{10}$$

as a decimal and a percentage.

Answer: _____

Question 4: Convert 0.6 to a fraction and a percentage.

Answer: _____

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Question 5: What is 40% as a decimal and a fraction?

Answer: _____

Question 6: Express

$$\frac{8}{10}$$

in two other ways.

Answer: _____

Question 7: Write 0.2 as a fraction and a percentage.

Answer: _____

Question 8: Convert 90% to a decimal and a fraction.

Answer: _____

Tenths Tiger Says:

"You're Terrific with Tenths!"

Joke Time: Why do tenths make great friends?
Because they're always one-tenth of the way to perfection!

Section 2: Reasoning - Comparing Different Forms

Question 9: Which is larger: 0.6 or 50%? Explain your answer.

Answer: _____

Question 10: Put these in order from smallest to largest:

$$\frac{1}{4}$$

, 0.3, 10%

Answer: _____

Question 11: Compare: 0.75 _____ 80% (use $>$, $<$, or $=$)

Answer: _____

Question 12: Which is smaller:

$$\frac{2}{5}$$

or 0.5?

Answer: _____

Question 13: Order from greatest to least: 65%,

$$\frac{3}{5}$$

, 0.7

Answer: _____

Question 14: Are these in order from smallest to largest? 20%,

$$\frac{1}{4}$$

, 0.3

13

Answer: _____

Question 15: Which is the odd one out: 0.25, 25%,

$$\frac{1}{5}$$

,

$$\frac{1}{4}$$

?

Answer: _____

Question 16: Compare:

$$\frac{9}{10}$$

_____ 0.85

Answer: _____

Comparison Kangaroo Says:

"You're Hopping High with Comparisons!"

Joke Time: Why did the fraction win the race?
It knew how to convert quickly!

Section 3: Challenge - Problem Solving

Question 17: In a class, 25% of students wear glasses. What fraction of the class does NOT wear glasses?

Answer: _____

Question 18: If you have 0.75 of a dollar, what percentage of a dollar do you have?

Answer: _____

Question 19: A pizza is cut into 10 slices. You eat 3 slices. Express what you ate as a decimal and a percentage.

Answer: _____

Question 20: A student scored 80% on a test. Express this as a fraction in simplest form.

Answer: _____

Question 21: If

$$\frac{3}{5}$$

of a book is read, what percentage is left to read?

Answer: _____

Question 22: A shirt was originally $40. It's on sale for 0.25 off. What percentage discount is this?

Answer: _____

Question 23: Challenge: In a survey,

$$\frac{2}{5}$$

of people chose chocolate, 0.3 chose vanilla, and the rest chose strawberry. What percentage chose strawberry?

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Answer: _____

Question 24: A tank is 0.6 full. What fraction is empty? Express as a simplified fraction.

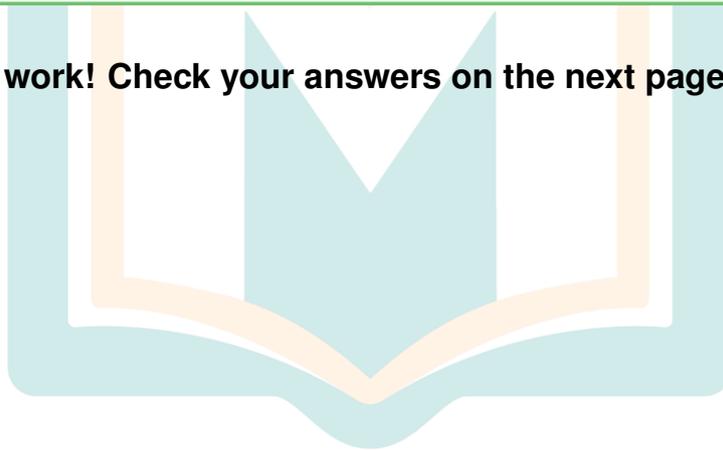Answer: _____

Problem Solving Platypus Says:

"You're a Real-World Wonder!"

Joke Time: Why are fractions, decimals, and percentages like a team?
They work together to solve any problem!

Outstanding work! Check your answers on the next page.

WORKSHEET 26
ANSWER KEY

Section 1: Fluency - Writing Tenths

1. 0.7 and 70%
2. 90% and

$$\frac{9}{10}$$

3. 0.3 and 30%
4.

$$\frac{6}{10}$$

or

$$\frac{3}{5}$$

and 60%
5. 0.4 or 0.40 and

$$\frac{4}{10}$$

or

$$\frac{2}{5}$$

6. 0.8 and 80%
7.

$$\frac{2}{10}$$

or

$$\frac{1}{5}$$

and 20%
8. 0.9 or 0.90 and

$$\frac{9}{10}$$

Section 2: Reasoning - Comparing Different Forms

9. 0.6 is larger (0.6 = 60%, and 60% > 50%)
10. 10%,

$$\frac{1}{4}$$

17

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, 0.3 (10% = 0.1;

$$\frac{1}{4}$$

= 0.25; 0.3 = 0.3)

11. 0.75 < 80% (0.75 = 75%, and 75% < 80%)

12.

$$\frac{2}{5}$$

(

$$\frac{2}{5}$$

= 0.4, and 0.4 < 0.5)

13. 0.7, 65%,

$$\frac{3}{5}$$

(0.7 = 70%; 65% = 65%;

$$\frac{3}{5}$$

= 60%)

14. Yes (20% = 0.2;

$$\frac{1}{4}$$

= 0.25; 0.3 = 0.3; in ascending order)

15.

$$\frac{1}{5}$$

(equals 20%, while others equal 25%)

16.

$$\frac{9}{10} >$$

0.85 (

$$\frac{9}{10}$$

= 0.9, and 0.9 > 0.85)

Section 3: Challenge - Problem Solving

17.

$$\frac{3}{4}$$

or 75% (100% - 25% = 75%)

18. 75%

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19. 0.3 and 30% (

$$\frac{3}{10}$$

= 0.3 = 30%)
20.

$$\frac{4}{5}$$

(80% =

$$\frac{80}{100}$$

=

$$\frac{4}{5}$$

)
21. 40% (

$$\frac{3}{5}$$

= 60% read; 100% - 60% = 40% left)
22. 25% (0.25 = 25%)
23. 30% (

$$\frac{2}{5}$$

= 40%; 0.3 = 30%; 40% + 30% = 70%; 100% - 70% = 30%)
24.

$$\frac{2}{5}$$

(0.6 full means 0.4 empty; 0.4 =

$$\frac{4}{10}$$

=

$$\frac{2}{5}$$

)

Brilliant!

You've mastered Fractions, Decimals & Percentages!
Keep up the fantastic work in Year 5 Maths!

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