



# WORKSHEET 07

## Percentages Basics

Year 5 Mathematics — Number & Money Strand

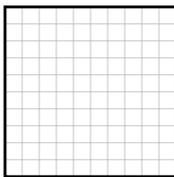
Australian Curriculum v9.0 — AC9M5N04

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Section 1: Fluency - Shading Grids

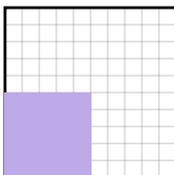
**Question 1:** Shade the grid below to show 35%. (Remember: Each square = 1%)



**Question 2:** What percentage is represented by 1 row and 4 individual squares in a 100-grid?

Answer: \_\_\_\_\_

**Question 3:** Look at the shaded grid below. What percentage is shaded?



Answer: \_\_\_\_\_

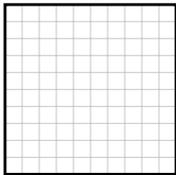
**Question 4:** If you shade 50 squares out of 100, what percentage have you



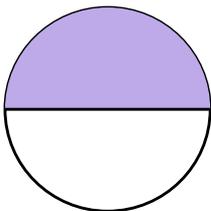
shaded?

Answer: \_\_\_\_\_

**Question 5:** Shade the grid below to show 75%.



**Question 6:** Look at this circle. What percentage is shaded?



Answer: \_\_\_\_\_

**Question 7:** How many squares would you need to shade in a 100-grid to show 20%?

Answer: \_\_\_\_\_



### Percent Parrot Says:

**“You’re a Percentage Pro!”**

*Joke Time:* Why was the percentage so good at basketball?

Because it always gave 100 percent!



## Section 2: Reasoning - Percentages of a Whole

**Question 8:** If 100% is the whole class of 30 students, what percentage is half the class?

Answer: \_\_\_\_\_

**Question 9:** A chocolate bar is 100% of the snack. If you eat 25%, what percentage is left?

Answer: \_\_\_\_\_

**Question 10:** Look at this bar. What percentage is NOT shaded?



Each section = 10%

Answer: \_\_\_\_\_

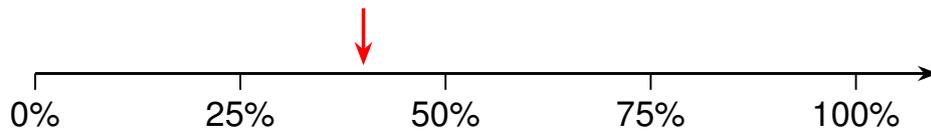
**Question 11:** If 100% equals 20 marbles, how many marbles is 10%?

Answer: \_\_\_\_\_

**Question 12:** A pizza is cut into 4 equal slices. If you eat 1 slice, what percentage of the pizza did you eat?

Answer: \_\_\_\_\_

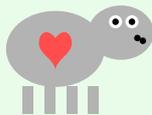
**Question 13:** Look at the scale below. What percentage does the arrow point to?



Answer: \_\_\_\_\_

**Question 14:** If you have completed 80% of your homework, what percentage is still left to do?

Answer: \_\_\_\_\_



### Whole-Hearted Hippo Says:

**“You Give 100% Effort!”**

*Joke Time:* What did 50% say to 100%?  
You're twice as nice!

## Section 3: Challenge - Comparing Relative Size

**Question 15:** Which is larger: 40% of a pizza or 60% of the same pizza?

Answer: \_\_\_\_\_

**Question 16:** Order these from smallest to largest: 75%, 50%, 25%, 100%

Answer: \_\_\_\_\_

**Question 17:** Tom scored 85% on his test. Sarah scored 90%. Who scored higher?



Answer: \_\_\_\_\_

**Question 18:** A bottle is 30% full. Another bottle is 70% full. Which bottle has more water?

Answer: \_\_\_\_\_

**Question 19:** Which is greater: 45% or 54%?

Answer: \_\_\_\_\_

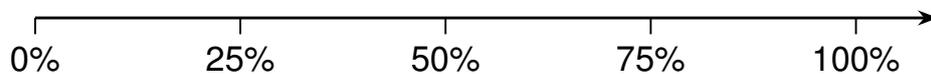
**Question 20:** A game is 95% downloaded. What percentage still needs to download?

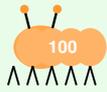
Answer: \_\_\_\_\_

**Question 21:** If Shop A has 20% off and Shop B has 30% off, which shop has a bigger discount?

Answer: \_\_\_\_\_

**Question 22:** Place these percentages on the scale: 10%, 65%, 90%





## Century Centipede Says:

“You’re a Century Champ!”

*Joke Time:* Why did 100% get all the attention?  
Because it was the whole package!

**Great job! Check your answers on the next page.**





# WORKSHEET 07

## ANSWER KEY

### Section 1: Fluency - Shading Grids

1. 35 squares should be shaded (any 35 squares out of 100)
2. 14% (1 row = 10 squares + 4 squares = 14 squares)
3. 60%
4. 50%
5. 75 squares should be shaded (any 75 squares out of 100)
6. 50% (half the circle is shaded)
7. 20 squares

### Section 2: Reasoning - Percentages of a Whole

8. 50%
9. 75%
10. 30% (70% is shaded, so  $100\% - 70\% = 30\%$ )
11. 2 marbles
12. 25%
13. 40%
14. 20%

### Section 3: Challenge - Comparing Relative Size

15. 60% of the pizza
16. 25%, 50%, 75%, 100%
17. Sarah (90% is greater than 85%)
18. The bottle that is 70% full
19. 54%
20. 5%
21. Shop B (30% off is bigger than 20% off)
22. 10% at position 1, 65% at position 6.5, 90% at position 9



# WORKSHEET 08

## Connecting Percentages, Fractions & Decimals

### Year 5 Mathematics — Number & Money Strand

Australian Curriculum v9.0 — AC9M5N04

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Section 1: Fluency - Simple Equivalents

**Question 1:** Write 50% as a fraction in its simplest form.

Answer: \_\_\_\_\_

**Question 2:** Write 25% as a decimal.

Answer: \_\_\_\_\_

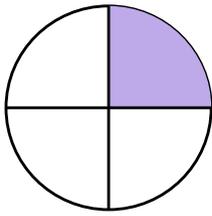
**Question 3:** What is 100% as a decimal?

Answer: \_\_\_\_\_

**Question 4:** Write 75% as a fraction in its simplest form.

Answer: \_\_\_\_\_

**Question 5:** Look at the diagram. Write the shaded amount as a percentage, fraction, and decimal.



Percentage: \_\_\_\_\_ Fraction: \_\_\_\_\_ Decimal: \_\_\_\_\_

**Question 6:** Write 10% as a fraction in its simplest form.

Answer: \_\_\_\_\_

**Question 7:** Write 0.5 as a percentage.

Answer: \_\_\_\_\_



### Equivalent Eagle Says:

**“You’re Soaring with Equivalents!”**

*Joke Time:* Why are fractions, decimals, and percentages friends?

Because they’re all equal in their own way!

## Section 2: Reasoning - Benchmark Matching

**Question 8:** Match the following by drawing lines to connect equivalents:



Fraction	Decimal	Percentage
$\frac{1}{2}$	0.75	10%
$\frac{1}{4}$	0.5	75%
$\frac{3}{4}$	0.1	50%
$\frac{1}{10}$	0.25	25%

**Question 9:** What fraction is equivalent to 50%?

Answer: \_\_\_\_\_

**Question 10:** What percentage is equivalent to 0.25?

Answer: \_\_\_\_\_

**Question 11:** Complete: 75% = \_\_\_\_\_ = \_\_\_\_\_  
 (fraction) (decimal)

**Question 12:** Which is larger:  $\frac{1}{2}$  or 25%?

Answer: \_\_\_\_\_

**Question 13:** Look at the benchmark chart below. Fill in the missing values.

Fraction	Decimal	Percentage
$\frac{1}{4}$	_____	_____
_____	0.5	_____
_____	_____	100%



**Question 14:** Write three different ways to represent "one quarter": as a fraction, decimal, and percentage.

Answer: \_\_\_\_\_



### Benchmark Bee Says:

"You're Creating a Buzz!"

*Joke Time:* What did the fraction say to the percentage?  
We're two of a kind!

## Section 3: Challenge - Real-World Context

**Question 15:** A shop has a 10% off sale. If an item costs \$100, how many dollars is the discount?

Answer: \_\_\_\_\_

**Question 16:** A test has 20 questions. If you get 75% correct, how many questions did you answer correctly?

Answer: \_\_\_\_\_

**Question 17:** A phone battery is at 50%. What fraction of the battery is charged?

Answer: \_\_\_\_\_

**Question 18:** In a class of 40 students, 25% wear glasses. How many students wear glasses?



Answer: \_\_\_\_\_

**Question 19:** A pizza is cut into 4 equal pieces. You eat 2 pieces. Express what you ate as a percentage, fraction, and decimal.

Answer: \_\_\_\_\_

**Question 20:** A bookshelf has 100 books. If 30% are fiction books, how many fiction books are there?

Answer: \_\_\_\_\_

**Question 21:** A store offers 20% off a \$50 toy. How much money will you save?

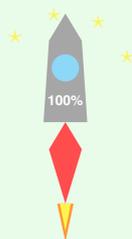
Answer: \_\_\_\_\_

**Question 22:** Look at the bar showing a phone charge. What percentage is charged?

Phone Battery



Answer: \_\_\_\_\_



## Real-World Rocket Says:

**“You’re Ready to Launch!”**

*Joke Time:* Why did the percentage go to space?  
To reach for 100% of the stars!



**Fantastic work! Check your answers on the next page.**





# WORKSHEET 08

## ANSWER KEY

### Section 1: Fluency - Simple Equivalents

1.  $\frac{1}{2}$  (or one-half)
2. 0.25
3. 1.0 (or 1)
4.  $\frac{3}{4}$  (or three-quarters)
5. Percentage: 25%, Fraction:  $\frac{1}{4}$ , Decimal: 0.25
6.  $\frac{1}{10}$
7. 50%

### Section 2: Reasoning - Benchmark Matching

8. Correct matches:

- $\frac{1}{2}$  connects to 0.5 connects to 50%
- $\frac{1}{4}$  connects to 0.25 connects to 25%
- $\frac{3}{4}$  connects to 0.75 connects to 75%
- $\frac{1}{10}$  connects to 0.1 connects to 10%

9.  $\frac{1}{2}$
10. 25%
11.  $\frac{3}{4}$  and 0.75
12.  $\frac{1}{2}$  (which equals 50%, and 50% is greater than 25%)
13. Row 1: 0.25, 25%; Row 2:  $\frac{1}{2}$ , 50%; Row 3:  $\frac{1}{1}$  or 1, 1.0
14.  $\frac{1}{4}$ , 0.25, 25%

### Section 3: Challenge - Real-World Context

15. \$10
16. 15 questions
17.  $\frac{1}{2}$
18. 10 students
19. 50%,  $\frac{1}{2}$ , 0.5
20. 30 books



21. \$10

22. 30%

## Spectacular!

You've mastered Percentages Basics!  
Keep up the amazing work in Year 5 Maths!

