Fractions and Ratios

1. Calculate. Give your answer in **simplest form**.

$$9 - \frac{13}{2} = _____$$

2. Calculate. Give your answer in **simplest form**.

$$4\frac{1}{2} + 3\frac{3}{4} = _____$$

3. Calculate. Give your answer in **simplest form**.

$$\frac{15}{6} + \frac{8}{5} = _____$$

4. Calculate. Give your answer in **simplest form**.

$$2\frac{1}{2} \times 1\frac{3}{4} = _____$$

5. Calculate. Give your answer in **simplest form**.

$$3\frac{1}{2} \div 1\frac{1}{2} = _____$$

6. **Simplify** the **ratio**.

$$\frac{3}{2} : \frac{2}{3} = _____$$

Decimals and Percentages

7. Convert the **mixed number** to a **decimal**.

$7\frac{1}{2}$ = _____

8. Convert to the **units** shown.

48 cm = _____ m

9. Convert the **mixed number** to a **percentage**.

$1\frac{1}{2}$ = _____ %

10. Complete the table. Convert each **percentage** to a **decimal** and a **fraction** in **simplest form**.

Percentage	Decimal	Fraction (simplest form)
0.75%		
12.5%		
125%		

11. What **percentage** is the **first amount** of the **second**?

30 cents of **$3.00 = _____** %

12. **Increase $240** by **15%**. Write the **new amount**.

Conversion practice

Convert each **decimal** to a **fraction** in **simplest form**.

Decimal	0.05	0.075	0.125
Fraction	____ ___	____ ___	____ ___

Money and Finance

13. Which is the **best buy**?

a) **2 kg** of apples for **$7.20**

b) **3 kg** of apples for **$10.20**

c) **5 kg** of apples for **$18.50**

Best buy: _____

14. Calculate the **sale price**.

A jacket normally **$80.00**. Discount: **25%**.

Sale price: $_____

15. Calculate the employee's **pay after tax**.

Hours worked: **36** Pay: **$28.50 per hour** Tax: **20%**

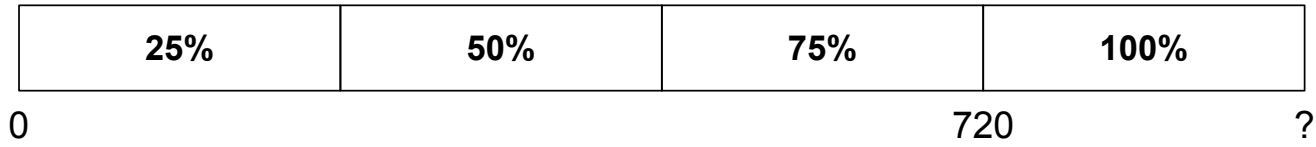
Pay before tax: $_____

Tax deduction: $_____

Pay after tax: $_____

16. Calculate the **original price**.

A tablet's sale price is **$720** after a **25%** discount.



Original price: $_____

Patterns and Algebra

17. Rewrite **without × or ÷ signs**.

a) $a \times 4 - a \times 2$ _____

b) $2 \times b \times 3 \times c$ _____

18. Rewrite using **index notation**.

a) $2 \times m \times m \times 3$ _____

b) $a \times a \times b \times b \times c$ _____

19. If **y = 3**, find the **value of x**.

a) $x = 3y + 2$ _____

b) $x = 4y - 1$ _____

20. **Simplify** the algebraic expressions.

a) $-6x + 9x$ _____

b) $7x - 10x$ _____

21. Find the **requested term** in each **number pattern**.

a) 4, 9, 16, 25, … Find the **12th term**. _____

b) 3, 6, 12, 24, … Find the **8th term**. _____