

Fractions and decimal – Checkpoint Sec 1 Math**1. No.3**

Write out $\frac{3}{5}$ as a decimal.

..... [1]

2. No.6

Complete these fraction calculations.

(a)

$$\frac{2}{3} - \frac{1}{4} = \frac{\boxed{}}{12}$$

[1]

(b)

$$\frac{\square}{8} + \frac{5}{12} = \frac{19}{24}$$

[1]

(c)

$$\frac{2}{\square} + \frac{1}{\square} = \frac{13}{20}$$

[1]

3. No.24

Calculate.

(a) $4.5^2 \times 2^2$

..... [2]

(b) $\frac{28 \times 16 + 14 \times 16}{14}$

..... [2]

4. No.29

Yuri tries to convert some fractions to their **simplest form**.

Tick (✓) to show if his answers are correct or incorrect.

	Correct	Incorrect
$\frac{16}{48} = \frac{2}{6}$	☐	☐
$\frac{14}{56} = \frac{1}{7}$	☐	☐
$\frac{17}{68} = \frac{1}{4}$	☐	☐

[1]

5. No.18

Write decimal numbers in the spaces to make a true statement.

0.009 < < 0.01 < < 0.011

[2]

6. No.22

Here is a multiplication with a mixed number missing.

$$\frac{5}{8} \times \boxed{} = \frac{3}{4}$$

Work out the missing mixed number.

[1]

7. No.1

Write $\frac{64}{124}$ in its simplest form.

..... [1]

8. No.7

Write 0.285 as a fraction in its simplest form.

..... [2]

9. No.12

Work out.

$$65 \div 9$$

Give your answer correct to two decimal places.

..... [2]

10. No.14

(a) Work out.

$$2.46 \times 1.3$$

..... [2]

(b) Write your answer to part (a) correct to two significant figures.

..... [1]

11. No.18

Carlos, Rajiv, Samira and Naomi share a bag of sweets.

Carlos eats $\frac{2}{5}$ of the sweets.

Rajiv eats $\frac{1}{6}$ of the sweets.

Samira and Naomi share the rest of the sweets equally.

Work out the fraction of the sweets that Samira gets.

..... [3]

12. No.22

A hamster eats $\frac{2}{7}$ of a bag of carrots each day.

Work out how many days it takes the hamster to eat 8 whole bags of carrots.

..... [2]

13. No.27

Write these numbers in order of size, starting with the smallest.

$$0.48 \times 10^4$$

$$16 \times 10^{-2}$$

$$7 \div 10^{-3}$$

$$175\,000 \div 10^4$$

.....
smallest

.....
largest

[2]

14. No.1

Complete the calculations.

(a) $0.9 \times 4 =$

[1]

(b) $\times 7 = 2.8$

[1]

15. No.5

Work out.

$$7.2 - 3.463$$

..... [1]

16. No.6

Here is a number statement.

$$\frac{11}{12} - \frac{1}{2} = \frac{a}{12}$$

Find the value of a .
 $a =$ [1]

17. No.14

Write $\frac{66}{72}$ as a fraction in its simplest form.

..... [1]

18. No.15

Work out.

$$14 + -5.5$$

.....

$$-6 \times -1.5$$

.....

[2]

19. No.16

A shop sells two sizes of washing powder.

Pack A contains 900 g plus $\frac{1}{4}$ extra free.

Pack B contains 1 kg plus 20% extra free.

Tick (✓) the pack that contains the most powder.
You must show your working.

Pack A ☐ Pack B ☐
[2]

20. No.10

Draw a ring around all the numbers that are greater than $\frac{11}{16}$ and less than $\frac{15}{16}$

0.45 0.55 0.65 0.75 0.85 0.95

[1]

21. No.15

Write the answer to each calculation correct to two decimal places.

Calculation	Correct to two decimal places
$45 \div 13$	
$103 \div 15$	
$17 \div 11$	

[2]

22. No.2

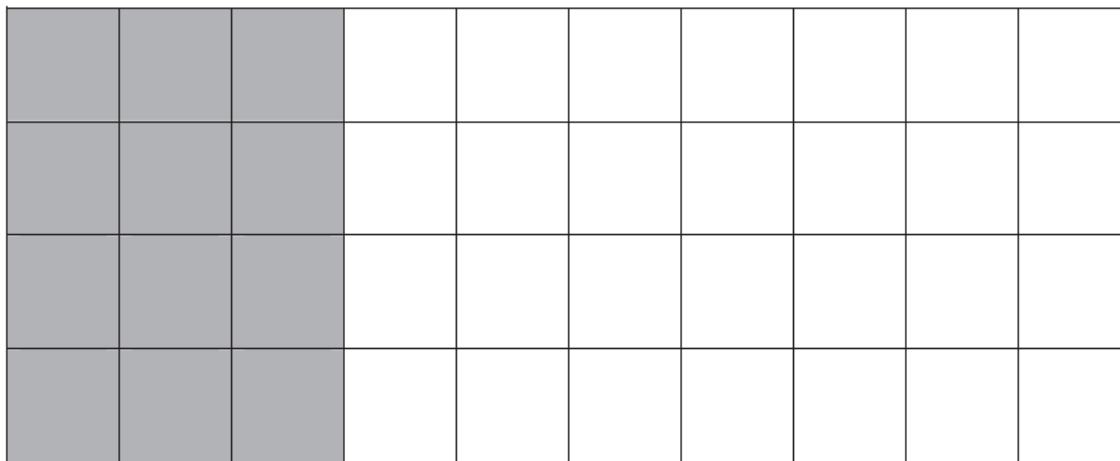
Draw a line to match each fraction to its percentage equivalent.
The first one has been done for you.

$\frac{1}{4}$	35%
$\frac{7}{20}$	34%
$\frac{17}{50}$	25%
$\frac{6}{15}$	$33\frac{1}{3}\%$
$\frac{1}{3}$	40%

[2]

23. No.4

Here is a shape that has been divided into equal parts.



- (a) Write down the fraction of the shape that is shaded.
Give your answer in its simplest form.

..... [1]

- (b) Find the percentage of the shape that is **unshaded**.

.....% [1]

24. No.7

Write $\frac{43}{7}$ as a mixed number.

..... [1]

25. No.11

Here is a calculation $48 \times 23 = 1104$

Use this calculation to work out the following.

(a) 48×24

..... [1]

(b) 4.8×0.23

..... [1]

(c) $1104 \div 2.3$

..... [1]

26. No.16

In a traffic survey of 495 vehicles, 390 are cars.

Work out the fraction of the vehicles that are **not** cars.
Give your answer as a fraction in its simplest form.

..... [2]

27. No.1

Use a whole number to complete the statement.

$$3.15 \times 0.04 = (3.15 \times \text{.....}) \div 100$$

[1]

28. No.10

(a) Here is a calculation.

$$87 \div 14 = 6 \text{ remainder } 3$$

Draw a ring around the correct fraction for the answer to this calculation.

$$\frac{6}{3} \quad 6\frac{3}{87} \quad 14\frac{3}{6} \quad 6\frac{3}{14} \quad 3\frac{6}{14}$$

[1]

(b) Use two whole numbers to complete this calculation.

$$\boxed{} \div \boxed{} = 9\frac{2}{13}$$

[1]

29. No.3(a)

Write a number in the box to make this statement correct.

$$5 \text{ cm}^2 = \boxed{} \text{ mm}^2$$

[1]

30. No.15

Work out.

$$\frac{7}{12} \times \frac{9}{14}$$

Give your answer as a fraction in its simplest form.

..... [2]

31. No.18

Here is a number fact.

$$13\,442 \div 47 = 286$$

Use this fact to work out

(a) $13.442 \div 4.7$

..... [1]

(b) 2.86×94

..... [1]

32. No.20

Complete these calculations.

$$7.4 + \boxed{} = 3.1$$

$$9.4 - -5.7 = \boxed{}$$

[2]

33. No.26

Find the fraction half-way between $\frac{2}{3}$ and $\frac{5}{6}$

Write your answer as a fraction in its simplest form.

..... [2]

34. No.28

Put these calculations in order of size from smallest to largest.

You do **not** need to work out each value.

9×0.85

$9 \div 0.18$

$9 \div 0.5$

9×0.1

.....
smallest

.....

.....

.....
largest

[1]

35. No.23

Convert $4\frac{2}{7}$ to a decimal.

Give your answer correct to 2 decimal places.

..... [1]

36. No.4

Here is a multiplication fact.

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

Use this fact to complete these calculations.

(a) $\frac{1}{2} \div \frac{3}{4} =$

[1]

(b) $1\frac{1}{3} \times \frac{3}{4} =$

[1]

37. No.6

Work out.

(a) 16.8×9

..... [1]

(b) $8.76 \div 6$

..... [1]

38. No.10

There are some children in a classroom.

The ratio of boys to girls is 3 : 1

(a) Work out the fraction of the children that are boys.

..... [1]

(b) There are 24 boys in the classroom.

Work out the number of girls.

..... [1]

39. No.11

Work out $2\frac{4}{5} + 3\frac{2}{3}$

Give your answer as a mixed number in its simplest form.

..... [3]

40. No.13

Write $\frac{54}{117}$ in its simplest form.

..... [1]

41. No.5

Here is a number fact.

$$\frac{3}{8} \times \frac{2}{5} = \frac{3}{20}$$

Use this to work out

$$\frac{3}{8} \times \frac{4}{5}$$

..... [1]

42. No.8

Work out

$$12.7 \times 0.3$$

..... [1]

43. No.9

There are 30 days in November.

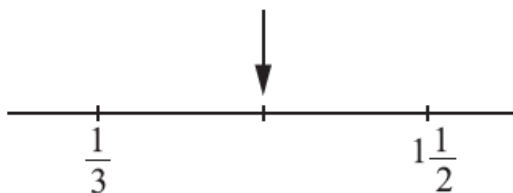
It rains on $\frac{3}{5}$ of them.

Work out the number of days when it does **not** rain.

..... days [1]

44. No.30

Work out the fraction that is halfway between $\frac{1}{3}$ and $1\frac{1}{2}$



Write your answer in its simplest form.

..... [2]

45. No.8

Here is a number statement.

$$\frac{3}{4} \times 28 = \frac{1}{3} \text{ of } y$$

Find the value of y .

$$y = \dots\dots\dots [2]$$

46. No.12

Two fractions are $\frac{5}{4}$ and $\frac{4}{5}$ Write down which fraction is closer to 1
Explain your answer.

..... is closer to 1 because

..... [1]

47. No.16

Complete the multiplication grid.

$\times$	8	0.2
.....	6.4	
0.3		

[3]

48. No.20

A tap fills a container with water at a rate of 0.25 litres per second.
 It takes $7\frac{1}{2}$ minutes to fill the container from empty.

Work out the amount of water in the full container.

..... litres [2]

49. No.1

Work out.

$$(6.5 + 3.2)(6.5 - 3.2)$$

..... [1]

50. No.6

Mia chooses two of these numbers.

2

3

5

11

13

15

When she divides one number by the other the answer is 0.8 correct to one decimal place.

Work out which two numbers she chooses.

..... and [1]

51. No.6

Work out

(a) 1.5×0.8

..... [1]

(b) $15 \div 0.06$

..... [1]

52. No.9

Use the laws of arithmetic to write numbers in the boxes to make these calculations correct.

$$4.5 \times 8 = 4.5 \times 2 \times 2 \times \boxed{}$$

$$8.84 \times 25 = 8.84 \times 100 \div \boxed{}$$

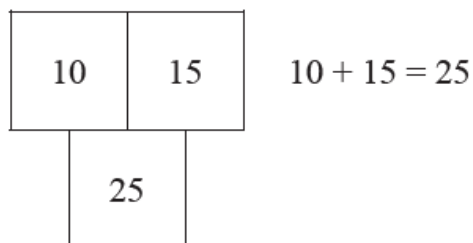
$$6.8 \times 5 = 6.8 \times \boxed{} \div 2$$

[2]

53. No.1

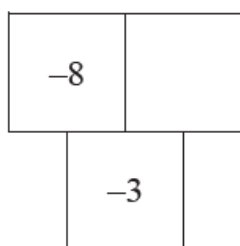
Here is the rule for these number grids.

Add the two top numbers to get the number below.
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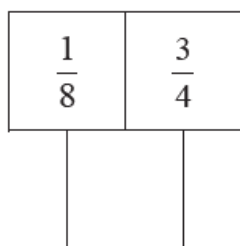
Complete these grids.

(a)



[1]

(b)



[1]

54. No.12

Here are some number cards.

6	10	5	11	7
---	----	---	----	---

Use two of the cards to make a fraction which is less than $\frac{1}{2}$

[1]

55. No.9

Work out.

(a) $\frac{7}{10} + \frac{1}{5}$

..... [2]

(b) $5\frac{1}{4} - 2\frac{1}{3}$

..... [2]

56. No.10

Here is a number fact.

$$137 \times 14 = 1918$$

Use the number fact to work these out.

(a) 137×0.14

..... [1]

(b) $1918 \div 13.7$

..... [1]

57. No.12

Some fractions are equivalent to **recurring** decimals.

$$\text{Example: } \frac{1}{3} = 0.333 \dots$$

Some fractions are equivalent to **terminating** decimals.

$$\text{Example: } \frac{3}{4} = 0.75$$

Write each of the following fractions in the correct position in the table.

$$\frac{2}{9} \quad \frac{2}{5} \quad \frac{7}{20} \quad \frac{5}{6} \quad \frac{1}{30}$$

Recurring decimals	Terminating decimals
$\frac{1}{3}$	$\frac{3}{4}$

[2]

58. No.22

Write down the value of

$$2.3^2 - (-2.3)^2$$

..... [1]

59. No.5

Calculate the remainder when 3456 is divided by 7

remainder = ... [1]

60. No.8

(a) Convert these fractions to decimals.

$$\frac{13}{16} = \dots\dots\dots$$

$$\frac{23}{32} = \dots\dots\dots [1]$$

(b) Write down a decimal between $\frac{13}{16}$ and $\frac{23}{32}$

..... [1]

61. No.8

(a) Change $\frac{2}{5}$ to a decimal.

..... [1]

(b) Write an integer in each box to make the statement true.

$$\frac{2}{5} < \frac{\boxed{}}{\boxed{}} < \frac{1}{2}$$

[1]

62. No.10

Use the information in the box to write down the value of each of the following.

$$27.6 \times 4.1 = 113.16$$

(a) 2.76×4.1

..... [1]

(b) $113.16 \div 41$

..... [1]

(c) 13.8×8.2

..... [1]

63. No.9Calculate $23.456 - 1.78$

..... [1]

64. No.15

Write the missing number in each box.

(a) $0.25 \times 10^3 = \boxed{}$

[1]

(b) $\boxed{} \div 10^{-1} = 25$

[1]

65. No.18

Write the missing numbers in the boxes.

$$\frac{2}{3} \div \frac{\boxed{}}{\boxed{}} = \frac{2}{3} \times \frac{4}{3} = \frac{\boxed{}}{\boxed{}}$$

[2]

66. No.24

Complete this multiplication grid.

	$\times$	1.2	
4			1
			0.3

[2]

67. No.1

Put a ring around the larger fraction in **each** pair.

$$\frac{3}{4} \quad \text{or} \quad \frac{7}{10}$$

$$\frac{5}{8} \quad \text{or} \quad \frac{13}{20}$$

$$\frac{2}{3} \quad \text{or} \quad \frac{6}{10}$$

[1]