

WEEK: 4

Week Beginning: (11/01/2021)

Subject: MATHS

Year: 5 (11+)

Lesson Objective:

- Understanding different types of questions relating to fractions
- Develop a clear strategy on how to Add, Subtract, Multiply, Divide and convert fractions
- Progress Check with an 11plus assessment

Class Worksheets

- Start off by giving answers for the homework (Mean, mode, range and median questions)
- Lesson 1: Go through the 5 types of questions on fractions (Add, Subtract, Multiply, Divide, and Conversion)
- Lesson 2: Assessment paper (35 minutes) and marked in lesson

Homework

- Add, Subtract, Multiply, Divide and convert fractions worksheet – Attached below
- Assessment – **must be completed in lesson**

Additional Notes

- Week 3 Homework will be marked in lesson
- All lesson worksheets and **homework for next week (due Week 5)** worksheets can be found below
- **Mark sure the Assessment is printed for second lesson or can be viewed on your device**
- **Login on time as assessment will start as the session begins**

1. Calculate



$$\frac{3}{4} \text{ of } 36$$

.....
(2)

2. Work out



$$\frac{1}{3} \text{ of } 24$$

.....
(1)

3. Work out



$$\frac{2}{5} \text{ of } 35 \text{ days}$$

.....
(2)

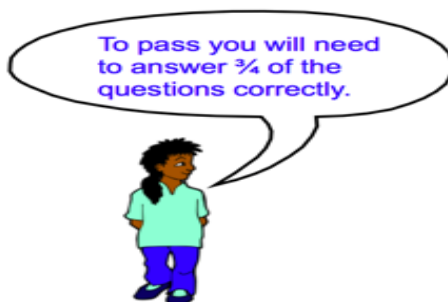
4. Calculate



$$\frac{4}{9} \text{ of } 72\text{kg}$$

.....
(2)

8. Mrs Johnson set 6 students a test.
The test has 20 questions.



The results were:

Alan	14
Barry	16
Carl	13
Donna	19
Emma	20
Fiona	10

Work out which students passed the test.

.....
(3)

7. James earns £800 a month.



He spends $\frac{1}{4}$ of this money on rent.
James spends $\frac{2}{5}$ of the money on food and bills.

How much money has he left?

£.....
(4)

9. Which is larger?



$\frac{1}{2}$ of 280 or $\frac{3}{8}$ of 400

Show your working.

.....
(3)

10. Joanne has 300 sweets.



She gives $\frac{1}{2}$ of the sweets to Erin.

Joanne then gives $\frac{1}{3}$ of the remaining sweets to William.

How many sweets does Joanne have left?

.....
(2)

11. Hannah has \$900.



She spends $\frac{1}{3}$ of this money on books and $\frac{2}{5}$ of the money on presents.

What fraction of the \$900 has she left?

15. Bill is 80 years old.



His son Max is $\frac{5}{8}$ of his age.

His granddaughter Jayne is $\frac{1}{5}$ of his age.

How many years older than Jayne is Max?

.....

.....
(4)

16. Georgie works 15 hours each week.



She earns £5 per hour.

Georgie saves $\frac{1}{3}$ of her earnings each week.

How many weeks does it take Georgie to save £200?

14. In January a baby elephant weighs 180kg.



By March the weight of the baby elephant had increased by $\frac{3}{8}$.

Work out the weight of the baby elephant in March.

.....kg

4. Work out, as a simplified fraction.

$$\frac{3}{4} - \frac{2}{5}$$

.....
(2)

5. Work out, as a simplified fraction.

$$\frac{3}{4} + \frac{2}{9}$$

.....
(2)

6. Work out, as a mixed number.

$$\frac{7}{11} + \frac{2}{3}$$

.....
(2)

7. Work out

$$1\frac{2}{5} + 2\frac{1}{2}$$

Give your answer as a mixed number.

.....
(3)

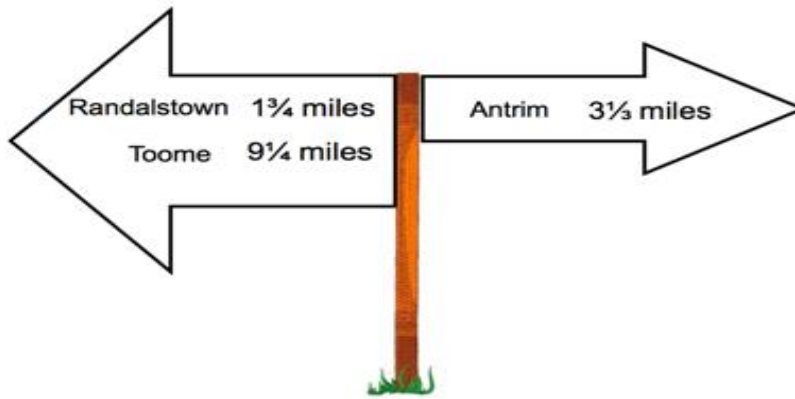
8. Work out

$$4\frac{1}{3} - 3\frac{4}{9}$$

Give your answer as a fraction.

.....
(3)

11. Martin is walking from Antrim to Randalstown.



- (a) Work out the distance from Antrim to Randalstown.

.....miles
(3)

- (b) Work out the distance from Randalstown to Toome.

.....miles

12. Hannah is baking two cakes.

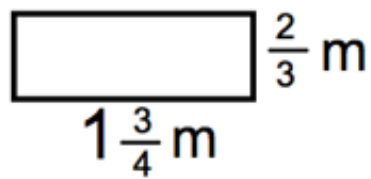
One cake needs $1\frac{1}{3}$ cups of milk.

Hannah has $1\frac{1}{4}$ cups of milk.

How much more milk does Hannah need?

.....cups
(3)

13. Jessica wants to attach ribbon around her wardrobe.



She has 4 metres of ribbon.

How much more does she need?

Give your answer as a fraction.

.....m

3. Work out

$$\frac{4}{5} \times \frac{9}{10}$$

Give your answer as a fraction in its simplest form.

.....
(2)

4. Work out

$$\frac{2}{3} \div \frac{8}{11}$$

Give your answer as a fraction in its simplest form.

10. Work out

$$5 \div \frac{3}{4}$$

.....
(2)

11. Work out

$$1\frac{1}{3} \times 2\frac{2}{5}$$

Give your answer as a mixed number.

12. Work out

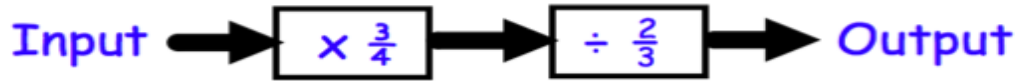
$$1\frac{4}{7} \div 1\frac{1}{4}$$

Give your answer as a mixed number.

13. Work out

$$5\frac{1}{2} \times 1\frac{2}{3}$$

Give your answer as a mixed number.



(a) Find the output, if the input is 2.

.....
(3)

(b) Find the input, if the output is $\frac{1}{2}$

.....

4. There are red sweets and yellow sweets in a bag.
 $\frac{5}{6}$ of the sweets are yellow.

There are 20 yellow sweets in the bag.

Work out how many sweets in total are in the bag.

.....
(2)

5. Gavin wins some money in a raffle.
Gavin gives $\frac{2}{3}$ of the money to charity.
He saves the rest of the money.

Gavin gives £240 to charity.
How much money does Gavin save?

.....

6. I'm thinking of a number

A $\frac{1}{3}$ of a number is 6.

Work out $\frac{1}{2}$ of the number.

7. I'm thinking of a number

A two-fifths of a number is 20.

Work out $2\frac{1}{2}$ times the number.

.....
(3)

-
8. Alison is selling DVDs of a school ski trip.
She has 300 DVDs that cost £2 each to make.

Alison sells 250 DVDs for the full price.

She then reduces the price of each DVD by $\frac{1}{3}$.
Alison sells the remaining DVDs for £6 each.

Work out how much profit Alison makes.

Homework Questions:

1. Write $\frac{5}{2}$ as a mixed number.

.....
(1)

2. Write $\frac{21}{5}$ as a mixed number.

.....
(1)

3. Write $\frac{10}{7}$ as a mixed number.

.....
(1)

4. Write $\frac{11}{3}$ as a mixed number.

.....
(1)

5. Write $\frac{19}{10}$ as a mixed number.

.....
(1)

7. Write the number 2.5 as a mixed number.

.....
(1)

8. Write the number 3.75 as a mixed number.

.....
(1)

9. Write the number 5.4 as a mixed number.

.....
(1)

11. Write $1\frac{2}{3}$ as a top heavy fraction.

.....
(1)

12. Write $2\frac{1}{2}$ as a top heavy fraction.

.....
(1)

13. Write $5\frac{3}{5}$ as a top heavy fraction.

.....

14. Jasper feeds his dog $\frac{2}{3}$ of a can of dog food each day.
Work out how many cans of dog food are eaten each week.

Give your answer as a mixed number.

1.

SALE
 $\frac{1}{3}$ OFF ALL ITEMS

The original price of a football is £12.
What is the sale price of the football?

£.....
(2)

2. Increase £800 by $\frac{1}{4}$

£.....
(2)

3. Decrease 150kg by $\frac{1}{5}$

.....kg
(2)

4. Decrease 21 by $\frac{1}{7}$

.....
(2)

5. Sarah normally earns £600 each month.
In December she is given a bonus of $\frac{1}{5}$ of her normal pay.

(a) Work out $\frac{1}{5}$ of 600.

£.....
(1)

(b) Work out her total pay for December.

£.....
(1)

6. The value of a house increased by $\frac{1}{10}$ over five years.

In 2010 the value of the house was £140,000.
Work out the value of the house in 2015.

£.....
(2)

7. Matthew weighed 81kg before training for a marathon

His weight decreased by a $\frac{1}{9}$.

Work out his weight after the marathon.

.....kg
(2)

13. Last year Melissa was paid £2200 per month.
Last year Natalie was paid £3200 per month.

Melissa's salary is increased by $\frac{3}{5}$.

Natalie's salary is increased by $\frac{1}{6}$.

Who is paid more each month this year?

You must show your workings.

.....

14. The population of an island in 2000 was 2385
By 2015 the population has decreased by $\frac{3}{4}$
- What was the population of the island in 2015?

.....
(3)

4. Write these numbers in order of size.
Start with the smallest number.

$$\frac{7}{10} \quad \frac{3}{5} \quad \frac{8}{15} \quad \frac{2}{3}$$

.....
(2)

5. A football team wins $\frac{3}{4}$ of their matches in a season
The same team loses $\frac{1}{3}$ of their matches.
- Show that the team win more matches than they lose.

(2)

6. Which of the following fractions is nearest to $\frac{7}{10}$?
- Show your working.

$$\frac{5}{8} \quad \frac{3}{4} \quad \frac{11}{20} \quad \frac{3}{5}$$

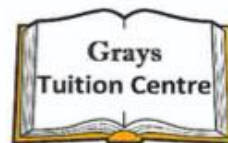
9.

$$\frac{1}{3} \quad \frac{2}{5} \quad \frac{1}{4} \quad \frac{3}{10} \quad \frac{3}{20}$$

Work out the median

10. Write these numbers in order of size.
Start with the smallest number.

$$\frac{9}{10} \quad \frac{23}{25} \quad \frac{37}{40} \quad \frac{47}{50}$$

ASSESSMENT (SECOND-LESSON): COMPLETE IN LESSON**Grays Tuition Centre**

...home of tutoring

11+ MATHEMATICS**TEST 3****Dynamite**

Name: _____

Date: ____/____/____

Read the following guidelines before you start:

1. Open this booklet only when you have been told to do so.
2. You can use the area around the question for your working out.
3. Aim to complete all the questions within the time limit.
4. If you make a mistake, cross it out and clearly write the new answer.
5. If you get stuck on a question, do not waste time and move on to the next one.
6. Do not speak to anyone once the test has started.
7. You are **NOT** allowed to use an electronic calculator.

Time : 35 Minutes

You have 35 minutes to complete this Paper. Write your answers clearly in the space provided.

1. Write twenty six thousand and twenty six in figures:

Answer:

2. Write 7:24 pm on a 24hour clock:

Answer:

3. Write the following numbers to 2 decimal places:

a. 599.9888888

Answer:

b. 37.76948278

Answer:

4. Write the smallest fraction:

$$\frac{4}{9}$$

$$\frac{1}{3}$$

$$\frac{4}{6}$$

$$\frac{4}{18}$$

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

Answer:

5. What is the area of a triangle if its base measures 9m and its height measures 18m:

Answer:

6. Charlotte went to the shops the other day and bought 3 packets of crisps that cost 58p each and 2 packets of sweet that cost 73p each. How much change did she get from £5:

7. In a shop there is a sale with 30% off all items. Christopher finds a toy that originally cost £56. How much does it cost now:

8. If two of the angles in a triangle are marked as 37° and 59° . What is the angle missing:

9. In a car park the ration of cars:lorries is 8:3. If there are 27 lorries, how many vehicles are there altogether:

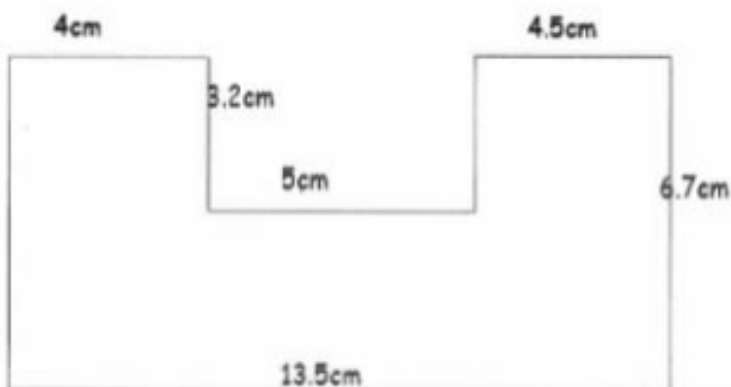
10. In a black bag there are ten balls, which are numbered in the following way. What is the probability of pulling out a ball with the number 3 on it:



11. There were 325 pies at the banquet. If one dish holds 20 pies, how many dishes do you need to hold all the pies:

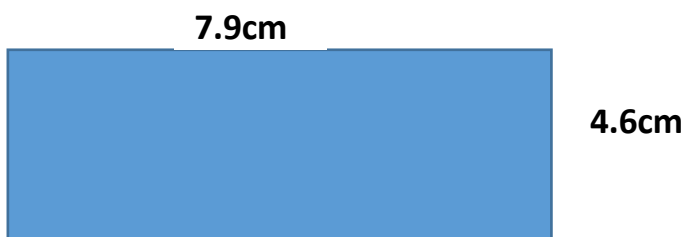
Answer:

12. What is the perimeter of the shape below:



Answer:

13. What is the area of the shape below:



Answer:

14. Write the smallest number:

0.2, 0.79, 1.02, 4.003, 0.050

Answer:

15. How many faces does a hexagonal prism have:

Answer:

16. Which of these angles is obtuse :

47° 89° 162° 189° 261°

Answer:

17. In a school of 196 pupils $\frac{3}{7}$ have black eyes, $\frac{1}{7}$ have green eyes and the rest have blue eyes. How many pupils have blue eyes in the school:

Answer:

18. Calculate the following:

a. $\frac{7}{9} - \frac{4}{18}$

Answer:

b. $\frac{3}{4} + \frac{5}{12}$

Answer:

c. $\frac{1}{4} \div \frac{2}{5}$

Answer:

d. $\frac{5}{7} \times \frac{4}{9}$

Answer:

19. If $B = 7$ and $C = 8$. What does A equal:

$$A = 3B + 4C$$

Answer:

20. Sandeep went running the other day. He started running at 15: 37 and ran for 1hr 29mins. What time did he get back at:

Answer:

21. Pauline is allowed to play on her computer for 37 minute every day for a week. How long does she spent on the computer in this week:

Answer:

22. Caroline was Z year old 9 years ago. What is the expression to show how old she is now:

Answer:

23. Nicole goes horse riding twice a week and it costs Z pounds each time. She also goes dacing three times a week and it costs Y pounds each time. What is the expression for the total cost each week:

Answer:

24. What is the sum of the following numbers: 38762 and 496.38

Answer:

25. What is the mean of the following numbers:

17, 6, 9, 12, 37, 9

Answer:

26. Terry has 396 CD's. He wants to put them in stands. The CD stands he likes holds 24cd's. How many does he need to buy to ensure every CD is in a stand:

Answer:

**HOMEWORK: COMPLETE ANY QUESTIONS NOT COMPLETED
IN LESSON 1 & START ASSESSMENT CORRECTIONS**