

Year 5 Maths Activities

Think Academy Home Learning Study Pack

Practice Questions and Answers





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Worksheet 1: Mental Math

1. $619+243=$

2. $970-380=$

3. $12 \times 14 =$

4. $875 \div 25 =$

5. $11 \times 11 + 99 =$

6. $(80+112) \div 12 =$

7. $(900 \div 30) \times 15 =$

8. $987 + 421 - 671 =$

9. $6 \times 5 \times 4 \times 3 \times 2 \times 1 =$

10. $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 \times 0 =$

Worksheet 2: Sequences – What number comes next?

1. 2, 8, 14, 20, ...

2. 90, 83, 76, 69, ...

3. 1, 4, 9, 16, ...

4. 80, 64, 52, 44, ...

5. 1, 1, 2, 3, 5, 8, 13, ...

6. 1, 1, 1, 3, 5, 9, 17, 31, ...

7. 1, 2, 2, 4, 8, 16, ...

8. 1, 4, 2, 8, 3, 16, 4, ...

9. 9, 1, 18, 4, 27, 9, ...

10. 1000, 555, 100, 55.5, 10, 5.55, ...

Worksheet 3: Angles

Find the angle!

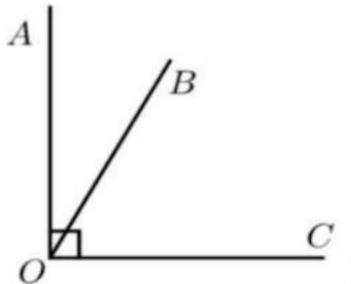
1. What is the angle on a straight line?

2. What is the internal angle of an equilateral triangle?

3. What is the angle between the hour and minute hands of a clock at 7:00am?

4. What is the angle between the hour and minute hands of a clock at 06:30?

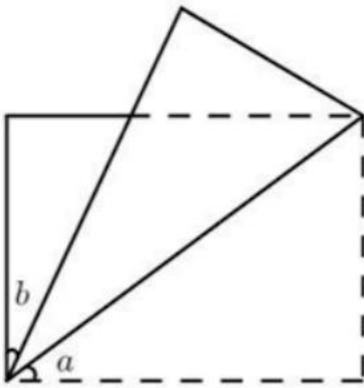
5. In the diagram below $\angle AOB$ is 36° . What is $\angle BOC$?



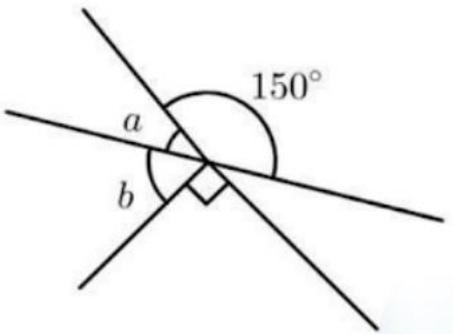
6. In the diagram below $\angle BOC$ is 4 times bigger than $\angle AOB$. What is the size of $\angle AOB$?

A |

9. In the diagram below a piece of paper has been folded over by angle a . If angle a is 33° , what is angle b ?



10. In the diagram below three straight lines intersect. What is angle b ?



Worksheet 4: Fractions

1. What is 2 and a third written as an improper fraction?

2. Simplify the fraction $\frac{12}{40}$

3. $\frac{1}{3} + \frac{5}{3} =$

4. $\frac{9}{4} - \frac{7}{4} =$ (write your answer in the simplest possible form)

5. $\frac{1}{3} + \frac{1}{4} =$

6. $\frac{4}{5} - \frac{1}{3} =$

7. What is 0.85 written as a fraction in its simplest form?

8. What is $\frac{3}{8}$ written as a decimal?

9. $\frac{4}{5} \div \frac{1}{5}$

10. $\frac{2}{3} \times \frac{4}{5} =$

Worksheet 5: Perimeter and Area

1. The length of a rectangle is 8, and its width is 12. What is the area?

2. The length of a square is 8. What is the area divided by the perimeter?

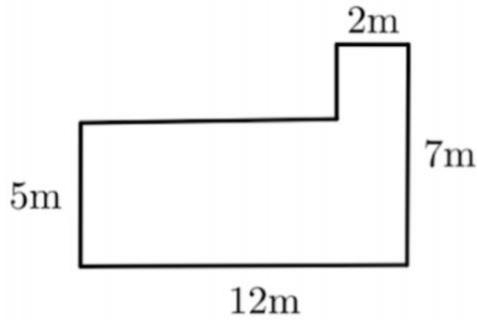
3. A triangle has base of 6 and height of 6. What is the area?

4. An equilateral triangle has side length of 4. What is the perimeter?

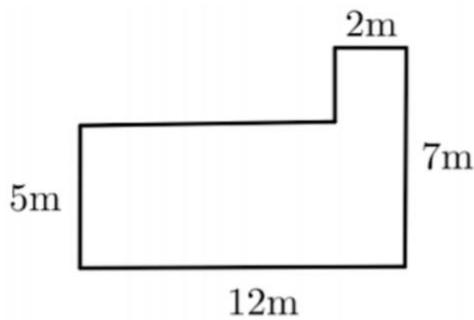
5. The perimeter of a square is 20. What is the area?

6. The perimeter of a rectangle is 10, and its width is 3. What is its area?

7. What is the area of this shape in square metres? (remember - only write the number in the answer NOT the unit)



8. What is the perimeter of this shape in metres? (remember - only write the number in the answer NOT the unit)



9. Oliver has a garden which is a square with length 6. Chantelle has a garden which is a rectangle with length 5 and width 7. Who has the biggest garden?

10. There are 4 squares placed side by side with length 10. What is the perimeter of this long rectangle made of 4 squares?

Worksheet 6: Divisibility

1. How many of these numbers are divisible by 2? 2342878, 876, 90, 55, 8237873, 0, 9281, -29, 27834277, 88

Mark only one oval.

3

4

5

6

2. How many of these numbers are divisible by 5? 2380, 575, 392, 888, 5, 99, 82, 783273827, 64213345

Mark only one oval.

3

4

5

6

Dividing by 4 rule!

To work out if something is divisible by 4 we need to look at the final 2 digits!

For example - 187832916 IS divisible by 4 (because 16 is)
282783726 IS NOT divisible by 4 (because 26 isn't)

3. Which of these are divisible by 4? (more than one correct answer!)

Tick all that apply.

376417478

8723164740

4879231724

829758188

94175897162

4. How many of these numbers are divisible by 4? 238497283944, 786, 90, 100000, 82347977, 89, 40

Mark only one oval.

- 3
 4
 5
 6

Dividing by 3 rule!

To work out if something is divisible by 3 add up all the digits and see if that is in the 3 times table.

For example - 68751 IS divisible by 3. Because $6 + 8 + 7 + 5 + 1 = 27$. And 27 IS in the 3 times table.

69751 IS NOT divisible by 3. Because $6 + 9 + 7 + 5 + 1 = 28$. And 28 IS NOT in the 3 times table.

5. Is 4869 divisible by 3?

Mark only one oval.

- Yes
 No

6. How many of these numbers are divisible by 3? 39639, 81, 90004, 46731, 55912, 504030201, 998

Mark only one oval.

- 3
 4
 5
 6

7. What's the largest number in the 800s that is divisible by 3?

Mark only one oval.

- 896
 897
 898
 899

Worksheet 7: Factors and Multiples

1. What are the factors of 24?

Tick all that apply.

- 9
- 6
- 8
- 24
- 12
- 5
- 1
- 16
- 2

2. Which factor of 24 wasn't shown in the list above?

3. True or false: bigger numbers always have more factors?

Mark only one oval.

- True
- False

4. Other than 1 and 2, what number is the factor of both 20 and 24?

5. Other than 1, what number is the factor of both 28 and 77?

6. True or false: all multiples of 8 are multiples of 4?

Mark only one oval.

True

False

7. Which of the following are multiples of 13?

Tick all that apply.

26

42

52

130

96

1

8. What is the lowest common multiple of 2 and 7?

9. What is the lowest common multiple of 16 and 24?

10. Eva's age is a multiple of 7. It is 3 less than a multiple of 8. Eva is less than 40 years old. How old is she?

Worksheet 8: Averages

1. What are the different types of average?

Tick all that apply.

- Mean
- Multiplied
- Median
- Mode
- Mathematical

2. What is the mean average of: 4, 0, 14, 3, 4

3. What is the median average of: 4, 0, 14, 3, 4

4. What is the mode average of: 4, 0, 14, 3, 4

5. The mean average of 3 numbers is 12. Two of the numbers are 8 and 10. What is the other number?

Mark only one oval.

- 12
- 10
- 18
- 16

6. I am thinking of 3 different positive numbers, which are all multiples of 7. Their mean average is 14. What is the biggest number?

Mark only one oval.

- 0
 7
 14
 21
 28

7. A member of my family, on average, weighs 60kg. There's 4 of us: me, my sister, my mum, and my dad. What is the total weight of our family?

Mark only one oval.

- 240kg
 120kg
 60kg
 600kg

8. In a classroom there are nine children aged 9, ten children aged 10, and one teacher aged 59. What is the mean average of the people in the classroom?

9. I took 5 exams and got an average of 80 points. But one of the exams was marked wrong and I should have 20 extra points! What is my correct average?

Mark only one oval.

- 80
 400
 84
 420

10. The mean average of 6 numbers is 10. I take away a number and the mean average of the 5 remaining numbers is 11. What is the number I took away?

Worksheet 9: Time

1. How many seconds are there in 1 hour?

2. Oli leaves home at 2:30pm. He walks to the shop, which takes him 40 minutes. He shops for an hour and a half. He then returns home on the bus which takes 10minutes. When does he get home?

Mark only one oval.

- 4:30pm
 5:00pm
 4:50pm
 5:50pm

3. The time now is 5 O'clock. What will the time be in 28 hours?

Mark only one oval.

- 5 o'clock
 7 o'clock
 9 o'clock
 11 o'clock

4. The time now is 5 o'clock. What is the time in 3000 hours?

Mark only one oval.

- 5 o'clock
 7 o'clock
 9 o'clock
 11 o'clock

5. On a 24 hour clock how do you write "a quarter to 8 in the evening"?

Mark only one oval.

- 08:15
- 18:15
- 7:45
- 19:45
- 20:15

6. Henry is 8 years old. His brother is twice Henry's age. How old will Henry's brother be when Henry is 16 years old?

Mark only one oval.

- 12
- 16
- 24
- 32

7. I am three times as old as my sister. In 4 years time I will be twice as old as her. How old am I now?

Mark only one oval.

- 8
- 10
- 12
- 14
- 16

8. The 1st December was a Tuesday. What day will Christmas Day be?

Mark only one oval.

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

9. It is exactly a year since my niece was born! She has just turned 1 year old! How many hours has she been alive? (it's not a leap year)

10. The 1st January 2021 is a Friday. What day will the 1st March be?

Mark only one oval.

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

Worksheet 10: Word Problems

4. Tony's mum gives him £2 every time he empties the dishwasher, and £3 every time he cleans his room. This year so far he's cleaned his room 13 times and emptied the dishwasher 21 times. How much has he earned for these tasks?

Mark only one oval.

- £39
- £42
- £61
- £81

5. Sam has 120 football cards. He sells half to his sister, and gives 20 to his mum. Then he buys 40 more. How many cards does he have now?

6. A bird can fly 40 miles/h. The distance from the nest to the river is 80 miles. How long will it take to fly there and back?

Mark only one oval.

- 2 hours
- 3 hours
- 4 hours
- 5 hours
- 6 hours

7. Grandpa Joe's age is a multiple of 22 and also a factor of 198. He is older than 50 (and younger than 100!). How old is he? (ONLY write the number)

8. Last year my age was a square number. Next year it will be a cube number. How old am I? (ONLY write the number)

9. My Grandad is so old that his age is a square number AND a cube number - how old is he? (ONLY write the number)

10. I spend 25 minutes walking to and from school. Last year I walked to and from school for a total of 80 hours. How many times did I go to school?

Answers:

Worksheet 1:

1. 862
2. 590
3. 168
4. 35
5. 220
6. 16
7. 450
8. 737
9. 720
10. 0

Worksheet 2:

1. 26 (+6 each time)
2. 62 (-7 each time)
3. 25 (square numbers, $5 \times 5 = 25$)
4. 40 (sequence has gone -16, -12, -8. Therefore, next is -4)
5. 21 (Fibonacci sequence)
6. 57 (Fibonacci style sequence except adding together the 3 previous numbers)
7. 32 (Powers of 2 - 2, 2 squared, 2 cubed etc.)
8. 32 (multiple sequences alternating)
9. 36 (multiple sequences alternating)
10. 1 (multiple sequences alternating)

Worksheet 3:

1. 180°
2. 60°
3. 150°

4. 15° At 6:30 the hour hand is halfway between 6 and 7. The angle between each number is 30. Half of 30 is 15.
5. 54°
6. 18°
7. 126°
8. 150°
9. 24° As the folded piece of paper has the same angle as the fold the overall corner is $33+33+b$. Therefore angle $b = 90 - 33 - 33 = 24$
10. 60°

Worksheet 4:

1. $7/3$
2. $3/10$
3. 2
4. $1/2$
5. $7/12$
6. $7/15$
7. $17/20$
8. 0.375
9. 4
10. $8/15$

Worksheet 5:

1. 96
2. 2
3. 18
4. 12
5. 25
6. 6
7. 64
8. 38
9. Oliver ($6 \times 6 = 36$. $7 \times 5 = 35$. $36 > 35$)

10. 100 (the rectangle has length of 40 and width of 10. Therefore, perimeter is $2 \times (40+10) = 100$)

Worksheet 6:

1. 5 (2342878, 976, 90, 0, 88)
2. 4 (2380, 575, 5, 64213345)
3. 8723164740, 4879231724, 829758188
4. 3 (238497283944, 100000, 40)
5. Yes
6. 4 (39639, 81, 46731, 504030201)
7. 897

Worksheet 7:

1. 6, 8, 24, 12, 1, 2
2. 3
3. False (e.g. 12 has more factors than 13)
4. 4
5. 7
6. True
7. 26, 52, 130
8. 14
9. 48
10. 21

Worksheet 8:

1. Mean, median, mode
2. 5
3. 4
4. 4
5. 18
6. 21
7. 240kg

8. 12
9. 84
10. 5

Worksheet 9:

1. 3600
2. 4:50
3. 9 o'Clock
4. 5 o'Clock
5. 19:45
6. 24
7. 12
8. Friday
9. 8760
10. Monday

Worksheet 10:

1. £5
2. 12
3. 7:50
4. £81
5. 80
6. 4 hours
7. 66
8. 26
9. 64
10. 192