

Future 6th Grade Skinner Scholar and Family,

As the school year comes to a close, we realize that you are looking forward to the sunny days and relaxation!!

In addition, we realize that students need to keep academic skills fresh for the next school year, and we are hoping for a smooth transition into 6th grade math. We have compiled math assignments for you to complete before entering 6th grade. All of these assignments address 5th grade math standards including multiplication, division, adding decimals, introduction to algebra, geometry, coordinate points, fractions, and working with order of operations. All of these skills are needed to progress through the 6th grade math curriculum. In addition, the summer homework helps the teachers identify where student strengths and areas for growth are. The assignments attached are due the first day of 6th Grade Academy to the math teachers. We expect that all students coming into 6th grade have multiplication facts memorized, an additional resource is www.multiplication.com for practice for multiplication and division facts. If you are having difficulties with a concept we suggest to visit khanacademy.com or youtube.com.

For more challenging problems, www.illustrativemathematics.org is a great site that offers challenging problems/tasks at all grade levels.

We all look forward to the 2017-2018 school year and are excited to meet your Skinner Scholar Mathematicians!!

Sincerely,

The 6th Grade Math Team

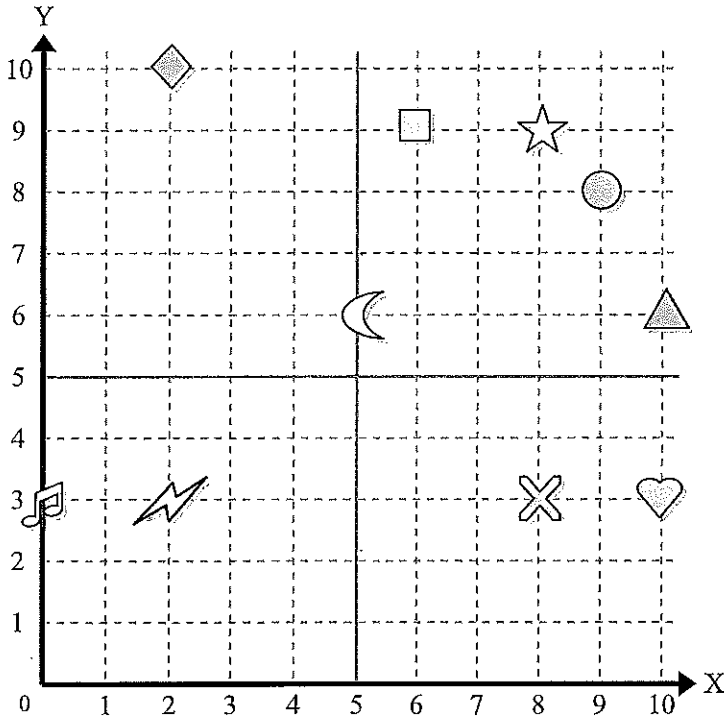
If any questions arise, please feel free to contact Jessica Piwko (Math Department Chair) via email at Jessica_piwko@dpsk12.org

Students with Individualized Educations Plans (IEP) can contact Jessica Rydning via email at Jessica_rydning@dpsk12.org for a modified version of the summer homework.





Use the grid below to determine the coordinates where each figure is located.



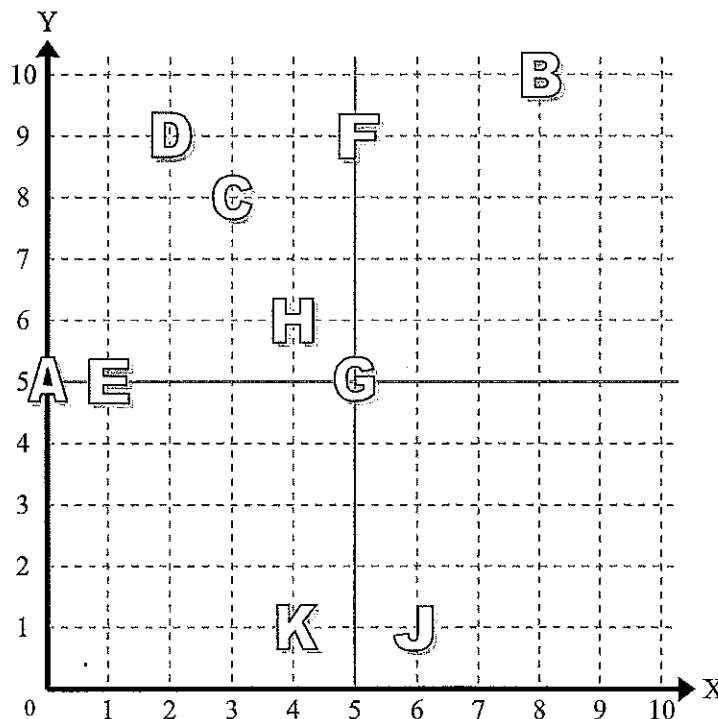
- 1) Star _____
- 2) Lightning _____
- 3) Circle _____
- 4) Heart _____
- 5) Cross _____
- 6) Triangle _____
- 7) Moon _____
- 8) Square _____
- 9) Diamond _____
- 10) Music Note _____

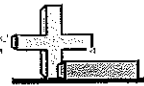
Answers

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____
- 16. _____
- 17. _____
- 18. _____
- 19. _____
- 20. _____

Determine which letter is at each coordinate using the grid below.

- 11) (3, 8) _____
- 12) (5, 5) _____
- 13) (0, 5) _____
- 14) (8, 10) _____
- 15) (2, 9) _____
- 16) (5, 9) _____
- 17) (6, 1) _____
- 18) (4, 6) _____
- 19) (1, 5) _____
- 20) (4, 1) _____





Solve each problem.

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

2) $\frac{3}{5} \times \frac{1}{4} =$

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

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

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

6) $\frac{3}{4} \times \frac{1}{3} =$

7) $\frac{1}{2} \times \frac{2}{3} =$

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

9) $\frac{3}{4} \times \frac{1}{3} =$

10) $\frac{1}{2} \times \frac{4}{5} =$

11) $\frac{4}{5} \times \frac{1}{3} =$

12) $\frac{2}{3} \times \frac{3}{4} =$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

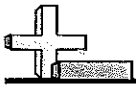
8. _____

9. _____

10. _____

11. _____

12. _____



Use the tables to answer each question.

- 1) The table below shows the weight of several bags.

Bag	Weight (in kilograms)
Bag 1	$9 \frac{3}{8}$
Bag 2	$4 \frac{5}{6}$
Bag 3	$9 \frac{1}{2}$
Bag 4	$4 \frac{1}{3}$

What is the combined weight of all the bags?

- 2) The table below shows the capacity of several water coolers.

Cooler	Capacity (in gallons)
Cooler 1	$9 \frac{1}{5}$
Cooler 2	$3 \frac{6}{8}$
Cooler 3	$1 \frac{1}{2}$
Cooler 4	$9 \frac{1}{2}$

What is the combined capacity of all the coolers?

- 3) The table below shows the length of several roads.

Road	Distance (in miles)
Road 1	$3 \frac{4}{6}$
Road 2	$2 \frac{1}{4}$
Road 3	$7 \frac{2}{4}$
Road 4	$7 \frac{1}{4}$

What is the combined length of all the roads?

- 4) The table below shows the weight of several dogs.

Dog	Weight (in pounds)
Dog 1	$8 \frac{2}{8}$
Dog 2	$7 \frac{4}{6}$
Dog 3	$6 \frac{6}{8}$
Dog 4	$2 \frac{3}{4}$

What is the combined weight of all the dogs?

- 5) The table below shows the height of several boxes.

Box	Height (in inches)
Box 1	$9 \frac{2}{3}$
Box 2	$7 \frac{1}{2}$
Box 3	$9 \frac{1}{2}$
Box 4	$1 \frac{3}{8}$

What is the combined height of all the boxes?

- 6) The table below shows the weight of several books.

Book	Weight (in ounces)
Book 1	$7 \frac{1}{4}$
Book 2	$8 \frac{3}{6}$
Book 3	$2 \frac{2}{8}$
Book 4	$6 \frac{3}{5}$

What is the combined weight of all the books?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____



Solve each problem. Write your answer as a mixed number (if possible).

1) $4\frac{1}{6} - \frac{5}{2} =$

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

3) $\frac{34}{8} - 3\frac{1}{9} =$

4) $\frac{42}{9} + \frac{9}{2} =$

5) $4\frac{5}{6} - 4\frac{1}{2} =$

6) $3\frac{5}{6} + \frac{13}{5} =$

7) $\frac{8}{9} - \frac{1}{3} =$

8) $\frac{34}{6} + 4\frac{1}{3} =$

9) $\frac{18}{4} - \frac{4}{3} =$

10) $2\frac{3}{5} + 2\frac{2}{4} =$

11) $5\frac{4}{5} - \frac{9}{4} =$

12) $\frac{3}{4} + \frac{1}{5} =$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

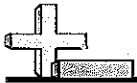
8. _____

9. _____

10. _____

11. _____

12. _____



Multiplication (Vertical)

Name: _____

Solve each problem.

$$\begin{array}{r} 1) \quad 164 \\ \times \quad 39 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 459 \\ \times \quad 15 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 224 \\ \times \quad 92 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 862 \\ \times \quad 79 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 261 \\ \times \quad 76 \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 667 \\ \times \quad 89 \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 360 \\ \times \quad 11 \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 631 \\ \times \quad 43 \\ \hline \end{array}$$

$$\begin{array}{r} 9) \quad 155 \\ \times \quad 51 \\ \hline \end{array}$$

$$\begin{array}{r} 10) \quad 165 \\ \times \quad 73 \\ \hline \end{array}$$

$$\begin{array}{r} 11) \quad 630 \\ \times \quad 35 \\ \hline \end{array}$$

$$\begin{array}{r} 12) \quad 927 \\ \times \quad 86 \\ \hline \end{array}$$

$$\begin{array}{r} 13) \quad 519 \\ \times \quad 30 \\ \hline \end{array}$$

$$\begin{array}{r} 14) \quad 527 \\ \times \quad 33 \\ \hline \end{array}$$

$$\begin{array}{r} 15) \quad 808 \\ \times \quad 54 \\ \hline \end{array}$$

$$\begin{array}{r} 16) \quad 625 \\ \times \quad 93 \\ \hline \end{array}$$

$$\begin{array}{r} 17) \quad 230 \\ \times \quad 82 \\ \hline \end{array}$$

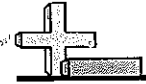
$$\begin{array}{r} 18) \quad 630 \\ \times \quad 38 \\ \hline \end{array}$$

$$\begin{array}{r} 19) \quad 670 \\ \times \quad 44 \\ \hline \end{array}$$

$$\begin{array}{r} 20) \quad 401 \\ \times \quad 44 \\ \hline \end{array}$$

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____



Solve each problem.

1) $30 \overline{) 7,230}$

2) $16 \overline{) 4,932}$

3) $28 \overline{) 6,511}$

4) $39 \overline{) 5,214}$

5) $28 \overline{) 8,232}$

6) $95 \overline{) 4,524}$

7) $56 \overline{) 6,496}$

8) $39 \overline{) 5,694}$

9) $83 \overline{) 9,296}$

10) $62 \overline{) 2,170}$

11) $59 \overline{) 8,835}$

12) $23 \overline{) 1,380}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

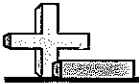
8. _____

9. _____

10. _____

11. _____

12. _____

**Solve each problem.**

- 1) A vat of orange juice contains the juice from 843 oranges. If a company has 89 vats, how many oranges would they use to fill them all?
- 2) A mail sorting machine can sort 774 pieces of mail an hour. If it ran for 77 hour, how many pieces of mail would it have sorted?
- 3) A farmer has 762 rows of corn. If he can get 84 ears of corn from each row, how many ears of corn would he have total?
- 4) In NYC each mail truck has 270 pieces of junkmail. If there are 99 mail trucks, how much junk mail do they have total?
- 5) If an industrial machine could make 418 pencils in a second, how many pencils would it have made in 15 seconds?
- 6) Each day the gumball machine in the mall sells 164 gum balls. How many gum balls would they have sold after 61 days?
- 7) A lawn mowing company had 573 customers. If each customer paid 59 dollars a year, how much money would they make?
- 8) A race was 993 meters. If 28 people ran in the marathon how many meters would they have run total?
- 9) Oliver was collecting cans for recycling. In 5 months he had collected 634 bags with 76 cans inside each bag. How many cans did he have total?
- 10) Paige was building a LEGO tower. She built it with 139 stories and with 18 blocks on each story. How many LEGO blocks would she have used?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



Solve each of the problems.

Answers

1) $(10 - 8) + 9 =$ _____

1. _____

2) $(10 \div 2) \times 1 =$ _____

2. _____

3) $(7 + 3) + 3 =$ _____

3. _____

4) $(24 - 10) - 4 =$ _____

4. _____

5) $(24 - 10) \div 2 =$ _____

5. _____

6) $(32 \div 8) - 4 =$ _____

6. _____

7) $(4 \times 9) \div 9 =$ _____

7. _____

8) $(14 - 7) \times 5 =$ _____

8. _____

9) $(10 + 6) - 5 =$ _____

9. _____

10) $(14 + 1) \div 5 =$ _____

10. _____

11) $(80 \div 10) + 7 =$ _____

11. _____

12) $(8 \times 10) \times 9 =$ _____

12. _____

13) $(5 \times 7) + 16 =$ _____

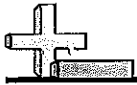
13. _____

14) $(10 \times 7) - 37 =$ _____

14. _____

15) $(9 + 6) \times 9 =$ _____

15. _____



Challenge

Rewriting Number Sentences

Name: _____

Rewrite each number sentence using numerals and symbols.

- 1) Find the sum of 6 and 4 and then take away 2
- 2) Find $\frac{1}{2}$ of 5 less than 10
- 3) Find the product of 3 and 2 and then take away 5
- 4) Find 6 times as many as 2 divided by 6
- 5) Subtract the quotient of 8 divided by 7 from 9
- 6) Divide 21 by the difference between 18 and 9
- 7) 2 divided by the quotient of 8 divided by 5
- 8) Find 2 more than, 5 plus 8
- 9) Find the product of 5 times 9 less than 3
- 10) Find $\frac{1}{9}$ as many as 3 divided by 5
- 11) Add 6 to the difference between 9 and 7
- 12) Find 5 less than 18 and then take the difference from 22
- 13) Find a number that is 4 less than, 22 minus 15
- 14) Find 3 more than 2 and then take the sum from 16
- 15) Multiply 3 and 7 and then multiply the product by 7
- 16) Find the sum of 4 and 3 and then divide 9
- 17) Find 5 times as much as the sum of 6 and 2
- 18) 5 divided by the product of 3 and 2
- 19) Multiply 7 and 3 and then divide the product by 9
- 20) 6 divided by the sum of 7 and 6

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Evaluate Expressions Homework

Name: _____

If $x = 9$ $y = 5$

1. $3 + y$

2. $y + 8$

3. $4y$

4. $y^2 + x$

5. $300y$

6. $x^2 - 2y$

7. $2y + 3 \bullet x$

8. $10y - x$

9. $2xy$

Evaluate Expressions Warm-up

Name: _____

If $a = 2$, $b = 6$

1. ab

2. $\frac{4b}{2}$

3. $\frac{2b - a}{5a}$

4. $3b - 4a$

5. $a^3 + 2b$

6. $b^2 \div (4 + a)$

7. $\frac{8b}{a+4}$

8. $5b - a \bullet 4$

9. $7 - b \div 2$

Student Name: _____

Score: _____

Decimal Addition – Three Addends

Sheet 1

1) $9.9 + 1.3 + 5.4 =$

2) $6.4 + 0.5 + 8.1 =$

3) $0.2 + 7.2 + 2.5 =$

4) $2.1 + 3.3 + 5.1 =$

5) $6.3 + 0.1 + 8.2 =$

6) $2.9 + 6.1 + 5.1 =$

7) $2.7 + 7.9 + 6.2 =$

8) $1.6 + 0.9 + 4.0 =$

9) $1.9 + 6.2 + 8.3 =$

10) $1.3 + 3.2 + 9.6 =$

11) $5.1 + 9.4 + 8.9 =$

12) $0.3 + 0.2 + 1.9 =$

13) $0.9 + 5.6 + 7.1 =$

14) $3.1 + 6.7 + 3.3 =$

15) $9.7 + 8.8 + 1.1 =$

16) $5.6 + 9.5 + 6.4 =$