

Dear Rising 8th grader,

Welcome to the 8th grade! This summer you will need to complete the attached math packet. It will help keep your math skills sharp and prepared for math this coming school year. I have set this packet up so that you have one page to do each week. Do not procrastinate! If you do a page a week, you will easily be able to finish. This packet is due on the first full day of class. It will be counted as your first homework grade of the new school year.

For additional practice, you may want to purchase a summer math workbook called Summer Bridge Workbook. It is available at Barnes and Nobles. This is not a requirement. For helpful math websites, please check out my webpage on the Saint Rose School website.

Have a fun and safe
summer.

Go
Stars!

Mrs.
Truax

Parent's

Please sign each page of the math packet after reviewing it with your child.

Practice 1

Solve. Watch the signs. Watch the decimal points.

1. $3.2 + 1.18 =$ _____

2. $3.2 \times .18 =$ _____

3. $6.7 - 3.15 =$ _____

4. $2.75 + 4.36 =$ _____

5. $5 - 2.7 =$ _____

7. $0.05 \times 0.4 =$ _____

Complete the problems.

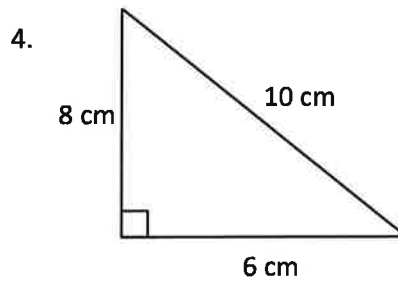
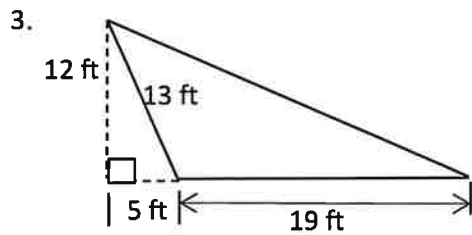
10. Find the Least Common Multiple of: 8 and 12.

13. Find the Least Common Multiple of: 14 and 21.

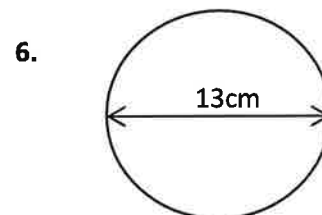
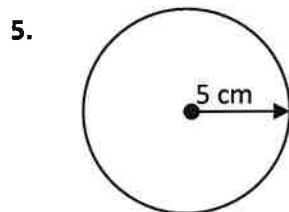
14. Find the Greatest Common Factor of: 12 and 20.

16. Find the Greatest Common Factor of: 16 and 40.

Find the area of each triangle.



Find the area and circumference of each circle. Use 3.14 for π .



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Practice 2

Divide. Don't use remainders. All the problems have exact decimal answers.

1. $5\overline{)8}$

2. $5\overline{)9}$

3. $5\overline{)2.5}$

4. $5\overline{)2.8}$

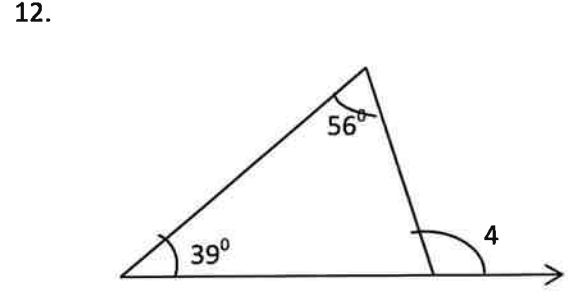
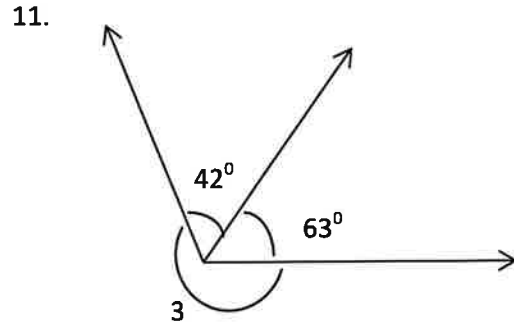
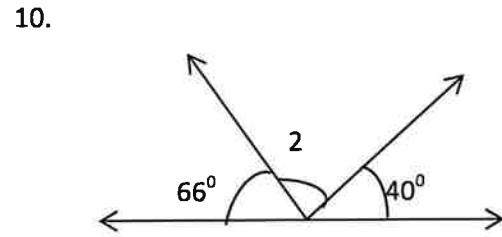
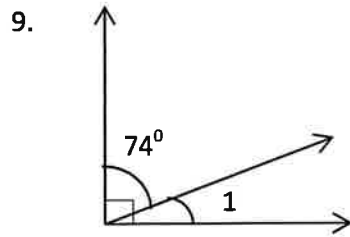
5. $9\overline{)8.1}$

6. $8\overline{)60}$

7. $2\overline{)9.3}$

8. $6\overline{)12.72}$

Find the missing angle.



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Practice 3

Solve each equation

1. $56 = 2(22 + e)$

2. $-2(f + 6) = 28$

3. $77 = -2(x - 5) + 3(x + 5)$

4. $7 + h = 2h - 19$

5. $3j + 88 = 52 + 2j$

6. $16 - k = k + 24$

7. $26 - 3m = 22 + m$

8. $36 + 2(n + 5) = 56$

Simplify. Watch the signs. Use shortcuts when you can.

9. $45.9 \div 1000$

10. 45.9×100

11. $45.9 \div 10$

12. $937 \div 10$

13. $93.7 \div 1000$

14. 1.25×10

Find the measure of the complement of each angle.

15. 31°

16. 8°

Find the measure of the supplement of each angle.

17. 16°

18. 97°

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Practice 4

Solve each equation

1. $\frac{b}{11} = 8$

2. $\frac{x}{19} = 2$

3. $5t = 95$

4. $\frac{2}{3}x = 12$

5. $x + \frac{2}{3} = \frac{8}{9}$

6. $b - 7 = 5$

7. $d - \frac{3}{4} = \frac{5}{12}$

8. $8x = \frac{4}{5}$

9. $18 = s - 12$

10. $d - \frac{2}{5} = 1\frac{3}{10}$

11. $\frac{3}{7}k = 6$

12. $3.2y = 40$

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Practice 5

Represent the solutions on a number line.

1. $w < 12$

2. $Y \geq 6$

3. $Z \leq 10$

4. $w > 4\frac{1}{2}$

5. $K < 10.5$

6. $g \leq 5\frac{3}{4}$

Simplify each. Watch the signs.

7. $-10 + (-32)$

8. $6 + (-13)$

9. $-16 + 4$

10. $11 - (-2)$

11. $-6 - (-12)$

12. $-26 - 4$

13. $-2(-4)$

14. $6(-4)$

15. $-6(12)$

16. $-28 \div -7$

17. $56 \div -8$

18. $-16 \div -8$

Write each decimal as a fraction and a percent. Write your fractions in lowest terms.

19. 0.06

20. 0.4

21. 2.46

22. 0.75

23. 6.03

24. 0.05

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Practice 6

Use $<$, $>$, or $=$ to compare the fractions.

1. $-\frac{2}{3} \bigcirc -\frac{3}{4}$

2. $\frac{2}{5} \bigcirc \frac{1}{4}$

3. $-\frac{1}{4} \bigcirc -\frac{3}{8}$

4. $\frac{4}{6} \bigcirc \frac{6}{9}$

Add or subtract. Watch the signs.

5. $\frac{1}{4} + \frac{2}{3}$

6. $\frac{3}{5} - \frac{1}{10}$

7. $\frac{4}{9} + \frac{1}{3}$

8. $\frac{6}{8} - \frac{3}{4}$

9. $\frac{3}{4} - \frac{4}{7}$

10. $\frac{1}{3} + \frac{4}{7}$

11. $\frac{3}{7} + \frac{1}{2}$

12. $\frac{2}{5} + \frac{1}{4}$

Add. Give your answers as mixed numbers in lowest terms.

13. $5\frac{1}{7} + 3\frac{4}{7}$

14. $2\frac{1}{5} + 1\frac{1}{10}$

15. $3\frac{3}{4} + 2\frac{1}{8}$

Subtract. Give your answers in lowest terms.

16. $5\frac{3}{7} - 2\frac{1}{7}$

17. $5\frac{3}{4} - 1\frac{1}{8}$

18. $5\frac{1}{8} - 1\frac{3}{4}$

Add or subtract. Watch the signs.

19. $7\frac{1}{8} + 6\frac{3}{4}$

20. $5\frac{5}{8} - 3\frac{3}{8}$

21. $4\frac{1}{6} - 2\frac{1}{2}$

22. $6\frac{1}{6} + 4\frac{1}{4}$

23. $1\frac{7}{8} + 2\frac{3}{4}$

24. $4\frac{5}{8} - 2\frac{3}{4}$

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Practice 7

Multiply or divide.

1. $4 \times \frac{3}{4}$

2. $\frac{1}{5} \times 7$

3. $\frac{12}{11} \times 4\frac{1}{4}$

4. $10 \times \frac{2}{4}$

5. $1\frac{1}{7} \div 4\frac{4}{5}$

6. $\frac{3}{4} \div \frac{5}{8}$

Find each number. Round to the nearest tenth if necessary. (Calculator allowed)

7. 45 is 15% of what number?

8. What percent of 60 is 15?

9. 48% of 725 is what number?

10. 45% of what number is 108?

Solve. Show your work.

11. Of the 140 pages in a book, 25% of them have illustrations. How many pages have illustrations?

12. The price of the bicycle that Danny wants to buy is \$282. How much will Danny pay for the bicycle if the state tax rate is 4%?

13. There are 650 visitors to an art gallery on Friday. There are 10% more visitors on Saturday than on Friday. How many visitors are there on Saturday?

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Practice 8

Write each ratio in simplest form.

1. $63 : 15$

2. $36 : 52$

Write the missing term in each pair of equivalent ratios.

3. $9 : 7 = \underline{\hspace{1cm}} : 49$

4. $60 : 115 = 12 : \underline{\hspace{1cm}}$

Solve. Show your work. Draw boxes if needed.

4. The ratio of the number of boys to the number of girls in the theater is $7 : 9$. There are 12 more girls than boys in the theater. How many children are in the theater?

5. Alyce has 60 marbles. Of the marbles, 45 are red and the rest are black. What is the ratio of the number of black marbles to the number of red marbles? Write your answer in simplest form.

6. The ratio of the number of teachers to students in a school is $3 : 35$. The ratio of the number of male students to the number of female students is $2 : 5$. There are 500 female students. How many teachers are there?

Evaluate each expression when $x = 4$.

7. $\frac{10-x}{3} + \frac{3x+6}{9}$

8. $(7x+2) \cdot \frac{20-3x}{4}$

Simplify.

9. $3(x-4)$

10. $2x + 4 + 5x + 6$

11. $10x + 20 - 3x - 5$

12. $9d + 15 - 4d - 8 - 5d$

13. $5(2x + 4) - 3x - 6$

14. $4(x + 6) - 2(x - 3)$

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