

Saint Michael School
Recommended Summer Math
(For students entering grades 6, 7, and 8)

Dear SMS Jr. High Parents, Guardians, and Students,

The 2020 summer math has been selected from the junior high Sadlier-Oxford Textbook Series online “Skills Update” sections.

Please complete only the pages for the grade for which you are entering in the fall.

Do ONLY the EVEN problems on each page.

Use notebook paper if you are accessing this work online and can't print the pages out or if you need more space. Submit all work, including notebook pages, during the first week of school.

Try to spread out the work and not leave it all to the end of summer. Further help can be found at [khanacademy.org](https://www.khanacademy.org) if additional review of the content is needed.

The worksheets are available for download at school.saint-michael.com

If you have any questions about your summer assignment, please email:
lseeley@saint-michael.com.

Thank you and have a safe, enjoyable summer! I look forward to seeing you all in the fall!

Lauren Seeley
Jr. High Math

The following pages are all grade 6 work.
Do only the EVEN problems on every page.
Use your notebook for more space or if you
can't print these pages.

If any of these problems are difficult,
just try your best. When you work through
difficult problems, learning happens!

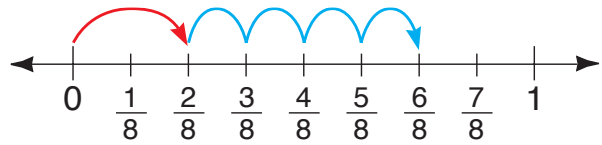
Submit all of your work the first week of school.

I look forward to meeting you!!!

Add and Subtract Fractions: Like Denominators

► To add fractions with *like* denominators:

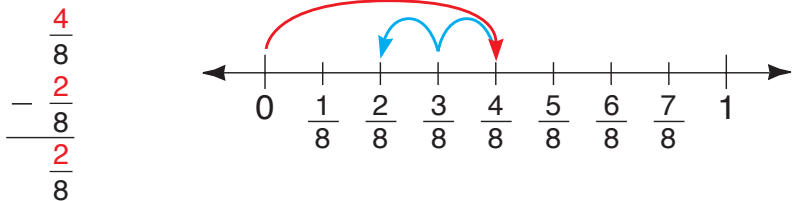
- Add the numerators. $\frac{2}{8} + \frac{4}{8} = \frac{2+4}{8}$
- Write the result over the common denominator. $= \frac{6}{8}$
- Express the sum in simplest form. $\frac{6}{8} = \frac{6 \div 2}{8 \div 2} = \frac{3}{4}$



← GCF of 6 and 8: 2

► To subtract fractions with *like* denominators:

- Subtract the numerators. $\frac{4}{8}$
- Write the result over the common denominator. $-\frac{2}{8}$
- Express the difference in simplest form. $\frac{2}{8} = \frac{2 \div 2}{8 \div 2} = \frac{1}{4}$



← GCF of 2 and 8: 2

Study these examples.

$$\begin{array}{r} \frac{1}{12} \\ + \frac{7}{12} \\ \hline \frac{8}{12} = \frac{8 \div 4}{12 \div 4} = \frac{2}{3} \end{array}$$

$$\begin{array}{r} \frac{4}{9} \\ - \frac{1}{9} \\ \hline \frac{3}{9} = \frac{3 \div 3}{9 \div 3} = \frac{1}{3} \end{array}$$

Add or subtract the fractions. Write each answer in simplest form.

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

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

3. $\frac{5}{9} + \frac{1}{9}$

4. $\frac{7}{12} - \frac{5}{12}$

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

6. $\frac{8}{9} + \frac{1}{9}$

7. $\frac{8}{10} + \frac{7}{10}$

8. $\frac{11}{24} - \frac{2}{24}$

9. $\frac{12}{12} - \frac{12}{12}$

Name _____ Date _____

Add and Subtract Fractions: Like Denominators

Add or subtract the fractions. Write each answer in simplest form.

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

2. $\frac{4}{15}$
+ $\frac{6}{15}$

3. $\frac{2}{8}$
+ $\frac{3}{8}$

4. $\frac{3}{10}$
+ $\frac{2}{10}$

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

6. $\frac{6}{12}$
+ $\frac{2}{12}$

7. $\frac{5}{8}$
+ $\frac{5}{8}$

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

9. $\frac{1}{2}$
+ $\frac{1}{2}$

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

11. $\frac{4}{10}$
+ $\frac{5}{10}$

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

13. $\frac{5}{12}$
- $\frac{2}{12}$

14. $\frac{8}{10}$
- $\frac{1}{10}$

15. $\frac{4}{5}$
- $\frac{2}{5}$

16. $\frac{5}{6}$
- $\frac{1}{6}$

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

18. $\frac{2}{3}$
- $\frac{1}{3}$

19. $\frac{3}{4}$
- $\frac{1}{4}$

20. $\frac{6}{7}$
- $\frac{5}{7}$

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

22. $\frac{9}{10}$
- $\frac{3}{10}$

23. $\frac{2}{3}$
- $\frac{2}{3}$

24. $\frac{11}{15}$
- $\frac{3}{15}$

25. $\frac{4}{8} + \frac{6}{8} =$ _____

26. $\frac{3}{6} + \frac{5}{6} =$ _____

27. $\frac{2}{3} + \frac{1}{3} =$ _____

28. $\frac{8}{15} + \frac{10}{15} =$ _____

29. $\frac{11}{20} + \frac{13}{20} =$ _____

30. $\frac{7}{10} + \frac{9}{10} =$ _____

31. $\frac{4}{5} + \frac{1}{5} =$ _____

32. $\frac{9}{16} + \frac{12}{16} =$ _____

33. $\frac{5}{25} + \frac{10}{25} =$ _____

34. $\frac{14}{15} - \frac{9}{15} =$ _____

35. $\frac{9}{10} - \frac{7}{10} =$ _____

36. $\frac{2}{4} - \frac{1}{4} =$ _____

37. $\frac{8}{10} - \frac{4}{10} =$ _____

38. $\frac{5}{9} - \frac{3}{9} =$ _____

39. $\frac{10}{12} - \frac{8}{12} =$ _____

40. $\frac{3}{5} - \frac{2}{5} =$ _____

41. $\frac{5}{6} - \frac{2}{6} =$ _____

42. $\frac{7}{8} - \frac{7}{8} =$ _____

Multiply 1- and 2-Digit Numbers

Multiply: $7 \times 27 = \underline{\quad ? \quad}$.

First estimate by rounding: $7 \times 30 = 210$.
Then multiply.

► To multiply by a one-digit number:

Multiply the ones.
Then regroup.

$$\begin{array}{r} 4 \\ 27 \\ \times 7 \\ \hline 9 \end{array}$$

Multiply the tens.
Then regroup.

$$\begin{array}{r} 4 \\ 27 \\ \times 7 \\ \hline 189 \end{array}$$

The product is 189.

Think

189 is close to the estimate of 210.

Multiply: $32 \times 46 = \underline{\quad ? \quad}$.

First estimate by rounding: $30 \times 50 = 1500$.
Then multiply.

► To multiply by a two-digit number:

Multiply the ones.

$$\begin{array}{r} 46 \\ \times 32 \\ \hline 92 \end{array} \leftarrow 2 \times 46$$

Multiply the tens.

$$\begin{array}{r} 46 \\ \times 32 \\ \hline 92 \\ 1380 \end{array} \leftarrow 30 \times 46$$

The product is 1472.

Think

1472 is close to the estimate of 1500.

Add the partial products.

$$\begin{array}{r} 46 \\ \times 32 \\ \hline 92 \\ + 1380 \\ \hline 1472 \end{array} \leftarrow \begin{array}{l} \text{partial} \\ \text{products} \end{array}$$

Estimate by rounding. Then find the product.

1. $\begin{array}{r} 55 \\ \times 6 \end{array}$

2. $\begin{array}{r} 613 \\ \times 9 \end{array}$

3. $7 \times \$8.64$

4. $\begin{array}{r} 67 \\ \times 34 \end{array}$

5. $\begin{array}{r} 329 \\ \times 43 \end{array}$

6. $92 \times \$7.68$



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Multiply by 1 - and 2-Digit Numbers

Estimate by rounding. Then find the product.

1.
$$\begin{array}{r} 18 \\ \times 7 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 52 \\ \times 5 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 93 \\ \times 8 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 647 \\ \times 8 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 237 \\ \times 9 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 80 \\ \times 5 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 75 \\ \times 6 \\ \hline \end{array}$$

8.
$$\begin{array}{r} \$3.99 \\ \times 3 \\ \hline \end{array}$$

9.
$$\begin{array}{r} \$2.07 \\ \times 8 \\ \hline \end{array}$$

10.
$$\begin{array}{r} \$4.09 \\ \times 7 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 729 \\ \times 6 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 324 \\ \times 4 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 778 \\ \times 5 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 456 \\ \times 4 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 479 \\ \times 3 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 276 \\ \times 5 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 532 \\ \times 8 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 124 \\ \times 7 \\ \hline \end{array}$$

19.
$$\begin{array}{r} 896 \\ \times 9 \\ \hline \end{array}$$

20.
$$\begin{array}{r} \$1.42 \\ \times 2 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 48 \\ \times 27 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 79 \\ \times 84 \\ \hline \end{array}$$

23.
$$\begin{array}{r} \$.95 \\ \times 77 \\ \hline \end{array}$$

24.
$$\begin{array}{r} \$.47 \\ \times 39 \\ \hline \end{array}$$

25.
$$\begin{array}{r} \$.75 \\ \times 63 \\ \hline \end{array}$$

26.
$$\begin{array}{r} 24 \\ \times 56 \\ \hline \end{array}$$

27.
$$\begin{array}{r} 65 \\ \times 18 \\ \hline \end{array}$$

28.
$$\begin{array}{r} 34 \\ \times 48 \\ \hline \end{array}$$

29.
$$\begin{array}{r} \$.56 \\ \times 92 \\ \hline \end{array}$$

30.
$$\begin{array}{r} \$.16 \\ \times 88 \\ \hline \end{array}$$

31.
$$\begin{array}{r} 352 \\ \times 87 \\ \hline \end{array}$$

32.
$$\begin{array}{r} 914 \\ \times 62 \\ \hline \end{array}$$

33.
$$\begin{array}{r} 725 \\ \times 46 \\ \hline \end{array}$$

34.
$$\begin{array}{r} \$8.49 \\ \times 63 \\ \hline \end{array}$$

35.
$$\begin{array}{r} \$5.58 \\ \times 39 \\ \hline \end{array}$$

36. $9 \times 193 = \underline{\hspace{2cm}}$

37. $6 \times 819 = \underline{\hspace{2cm}}$

38. $24 \times 347 = \underline{\hspace{2cm}}$

39. $3 \times \$.84 = \underline{\hspace{2cm}}$

40. $8 \times \$2.55 = \underline{\hspace{2cm}}$

41. $15 \times \$7.29 = \underline{\hspace{2cm}}$

42. $15 \times 24 = \underline{\hspace{2cm}}$

43. $92 \times 83 = \underline{\hspace{2cm}}$

44. $27 \times \$.88 = \underline{\hspace{2cm}}$

Add Whole Numbers and Decimals

Add: $8164 + 4676 = \underline{\quad ? \quad}$.

First estimate by rounding: $8000 + 5000 = 13,000$. Then add.

► **To add whole numbers:**

Add the ones.
Regroup.

$$\begin{array}{r} 1 \\ 8164 \\ +4676 \\ \hline 0 \end{array}$$

Add the tens.
Regroup.

$$\begin{array}{r} 11 \\ 8164 \\ +4676 \\ \hline 40 \end{array}$$

Add the hundreds.

$$\begin{array}{r} 11 \\ 8164 \\ +4676 \\ \hline 840 \end{array}$$

Add the thousands.
Regroup.

$$\begin{array}{r} 11 \\ 8164 \\ +4676 \\ \hline 12,840 \end{array}$$

The sum is 12,840.

Think

12,840 is close to the estimate of 13,000.

Add: $0.44 + 0.3 + 0.85 = \underline{\quad ? \quad}$.

First estimate by rounding to the nearest tenth: $0.4 + 0.3 + 0.9 = 1.6$. Then add.

► **To add decimals:**

Line up the decimal points.

$$\begin{array}{r} 0.44 \\ 0.30 \\ +0.85 \\ \hline \end{array}$$

Add. Regroup if necessary.

$$\begin{array}{r} 1 \\ 0.44 \\ 0.30 \\ +0.85 \\ \hline 1.59 \end{array}$$

Write the decimal point.

$$\begin{array}{r} 1 \\ 0.44 \\ 0.30 \\ +0.85 \\ \hline 1.59 \end{array}$$

The sum is 1.59.

Think

1.59 is close to the estimate of 1.6.

Estimate by rounding. Then add.

1. $\begin{array}{r} 536 \\ +143 \\ \hline \end{array}$

2. $\begin{array}{r} 1578 \\ +6421 \\ \hline \end{array}$

3. $\begin{array}{r} 1768 \\ +63 \\ \hline \end{array}$

4. $\begin{array}{r} 17,243 \\ +13,963 \\ \hline \end{array}$

5. $\begin{array}{r} 567,892 \\ +132,104 \\ \hline \end{array}$

Align and estimate by rounding. Then add.

6. $5751 + 756$

7. $0.56 + 0.41$

8. $0.8 + 0.47$

9. $\$9.78 + \$43.85 + \$5$

Name _____ Date _____

Add Whole Numbers and Decimals

Estimate by rounding. Then add.

1.
$$\begin{array}{r} 532 \\ + 197 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 908 \\ + 46 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 2384 \\ + 4689 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 37,561 \\ + 26,082 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 17,836 \\ + 2,467 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 27,268 \\ + 14,243 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 103,259 \\ + 262,137 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 73,942 \\ + 2,009 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 74,608 \\ + 32,517 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 849,182 \\ + 617,007 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 456,126 \\ + 9,499 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 87,654 \\ + 585 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 18.38 \\ + 7.15 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 83.7 \\ + 4.34 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 9.29 \\ + 3.1 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 51.8 \\ + 16.5 \\ \hline \end{array}$$

17.
$$\begin{array}{r} \$4.64 \\ + 3.95 \\ \hline \end{array}$$

18.
$$\begin{array}{r} \$57.06 \\ + 8.19 \\ \hline \end{array}$$

19.
$$\begin{array}{r} \$75.98 \\ + 14.89 \\ \hline \end{array}$$

20.
$$\begin{array}{r} \$25.15 \\ + 61.38 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 0.69 \\ 1.87 \\ + 3.2 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 8.48 \\ 0.3 \\ + 6.27 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 0.05 \\ 1.71 \\ + 8.23 \\ \hline \end{array}$$

24.
$$\begin{array}{r} \$10.99 \\ 1.46 \\ + 5.19 \\ \hline \end{array}$$

Align and estimate by rounding. Then add.

25. $467 + 895 =$ _____

26. $126 + 79 =$ _____

27. $1699 + 5732 =$ _____

28. $9081 + 61,482 =$ _____

29. $84,207 + 3,659 =$ _____

30. $176,505 + 32,899 =$ _____

31. $64.98 + 8.32 =$ _____

32. $0.6 + 53.1 + 0.11 =$ _____

33. $\$38.25 + \$41.93 + \$7.08 =$ _____

34. $\$6.92 + \$18.46 + \$24.48 =$ _____

Subtract Whole Numbers and Decimals

Subtract: $4816 - 1932 = \underline{\quad ? \quad}$.

First estimate by rounding: $5000 - 2000 = 3000$. Then subtract.

► **To subtract whole numbers:**

Subtract the ones.

$$\begin{array}{r} 4816 \\ -1932 \\ \hline \end{array}$$

More tens needed. Regroup. Subtract.

$$\begin{array}{r} 7 11 \\ 4\cancel{8}\cancel{1}6 \\ -1932 \\ \hline 84 \end{array}$$

More hundreds needed. Regroup. Subtract.

$$\begin{array}{r} 17 \\ 3\cancel{7}11 \\ 4\cancel{8}\cancel{1}6 \\ -1932 \\ \hline 884 \end{array}$$

Subtract the thousands.

$$\begin{array}{r} 17 \\ 3\cancel{7}11 \\ 4\cancel{8}\cancel{1}6 \\ -1932 \\ \hline 2884 \end{array}$$

Think

2884 is close to the estimate of 3000.

The difference is 2884.

Subtract: $0.7 - 0.46 = \underline{\quad ? \quad}$.

First estimate by rounding to the nearest tenth: $0.7 - 0.5 = 0.2$. Then subtract.

► **To subtract decimals:**

Line up the decimal points.

$$\begin{array}{r} 0.70 \\ -0.46 \\ \hline \end{array}$$

Subtract. Regroup if necessary.

$$\begin{array}{r} 6 10 \\ 0.\cancel{7}\cancel{0} \\ -0.46 \\ \hline 24 \end{array}$$

Write the decimal point.

$$\begin{array}{r} 6 10 \\ 0.\cancel{7}\cancel{0} \\ -0.46 \\ \hline 0.24 \end{array}$$

Think

0.24 is close to the estimate of 0.2.

The difference is 0.24.

Estimate by rounding. Then subtract.

1. $\begin{array}{r} 489 \\ -366 \\ \hline \end{array}$

2. $\begin{array}{r} 6244 \\ -29 \\ \hline \end{array}$

3. $\begin{array}{r} 36,243 \\ -13,963 \\ \hline \end{array}$

4. $\begin{array}{r} 456,781 \\ -179,660 \\ \hline \end{array}$

5. $\begin{array}{r} 587,893 \\ -498,721 \\ \hline \end{array}$

6. $\begin{array}{r} 0.74 \\ -0.39 \\ \hline \end{array}$

7. $\begin{array}{r} 0.81 \\ -0.6 \\ \hline \end{array}$

8. $\begin{array}{r} \$0.95 \\ -.59 \\ \hline \end{array}$

9. $\begin{array}{r} \$14.97 \\ -10.49 \\ \hline \end{array}$

10. $0.8 - 0.29$

Name _____ Date _____

Subtract Whole Numbers

Estimate by rounding. Then subtract.

1.
$$\begin{array}{r} 138 \\ - 79 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 856 \\ - 28 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 632 \\ - 179 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 1265 \\ - 484 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 800 \\ - 240 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 7587 \\ - 3612 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 453 \\ - 75 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 527 \\ - 248 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 4524 \\ - 395 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 2675 \\ - 320 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 9812 \\ - 7464 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 8751 \\ - 4392 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 32,345 \\ - 28,888 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 38,416 \\ - 6,518 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 956,231 \\ - 629,555 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 0.73 \\ - 0.16 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 0.9 \\ - 0.2 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 0.5 \\ - 0.06 \\ \hline \end{array}$$

19.
$$\begin{array}{r} 0.84 \\ - 0.2 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 0.45 \\ - 0.41 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 15.79 \\ - 10.63 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 29.5 \\ - 4.7 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 68.1 \\ - 17.38 \\ \hline \end{array}$$

24.
$$\begin{array}{r} 59.7 \\ - 8.04 \\ \hline \end{array}$$

25.
$$\begin{array}{r} 81.17 \\ - 9.5 \\ \hline \end{array}$$

26.
$$\begin{array}{r} \$90.57 \\ - 4.39 \\ \hline \end{array}$$

27.
$$\begin{array}{r} \$5.16 \\ - 0.99 \\ \hline \end{array}$$

28.
$$\begin{array}{r} \$28.24 \\ - 26.09 \\ \hline \end{array}$$

29.
$$\begin{array}{r} \$17.49 \\ - 8.57 \\ \hline \end{array}$$

30.
$$\begin{array}{r} \$77.66 \\ - 25.09 \\ \hline \end{array}$$

Align and estimate by rounding. Then subtract.

31. $2445 - 1986 = \underline{\hspace{2cm}}$

32. $8458 - 2879 = \underline{\hspace{2cm}}$

33. $24,145 - 16,958 = \underline{\hspace{2cm}}$

34. $746,231 - 527,854 = \underline{\hspace{2cm}}$

35. $4.15 - 0.7 = \underline{\hspace{2cm}}$

36. $9.5 - 6.86 = \underline{\hspace{2cm}}$

37. $37.6 - 0.08 = \underline{\hspace{2cm}}$

38. $93.8 - 5.81 = \underline{\hspace{2cm}}$