The American School of Marrakesh

Grade 7

Grade 7 Summer Preparation Packet

Summer 2016

Grade 7 Summer Preparation Packet

This summer packet contains exciting math problems designed to ensure your readiness for Grade 7. The topics covered in this packet are concepts that should have been mastered by end of Grade 6. Mathematics is based on building upon foundations learned in previous years. Having a solid foundation of skills makes it easier to learn new concepts, and therefore lead you to more success and deeper understanding of the concepts covered. Your success next year begins now!

Show all work that leads you to each solution. Use separate paper, if necessary. You may get help with this packet from friends, a tutor, the internet, or a teacher, but please understand that "help" means having someone explain how to solve the problem, not just simply supplying the answer or copying the work someone else did. YOU are responsible for understanding the material contained in this packet, and for being able to employ the skills necessary to solve each problem.

All work should be completed and ready to turn in on the **first day of school**. This packet will count as part of your **first term grade** and will be graded on completeness and correctness. You will not be given credit for problems in this packet if no work is shown. **A Summer Math Packet test** will be given at the end of the first full week of school.

Do a little of your Summer Math Packet each week. You are not expected to do all of it on the first day or the last week. Your Summer Math Packet will be used to analyze your strengths and weaknesses, and assist your teacher in helping you grow mathematically throughout the year.

Honor and integrity are at the heart of all students at The American School of Marrakesh. True Warriors never cheat. You are only hurting yourself by attempting to copy someone else's work. This packet is to help you be ready for Grade 6, and help your teachers know what you can do.

Thank you and have a great summer!

If you are receiving this packet, please provide the following information to me through email to corense@asm.ac.ma

Name: _____
Phone: _____
Email: _____

Emailing this information acknowledges receipt of the packet, and an understanding that completion of this prerequisite packet is a requirement for the Grade 7 course. The packet is **due on the first day of class**.

NAME _____ DATE _____ PERIOD _____

4-1 Practice: Skills

Multiplying Decimals by Whole Numbers

Multiply.

1. 1.5
$\times$ 3

2. 0.9
$\times$ 6

3. 0.45
$\times$ 5

4. 3.12
$\times$ 8

5. 3.47
$\times$ 5

6. 2.08
$\times$ 6

7. 9.14
$\times$ 2

8. 0.82
$\times$ 9

9. 6.3
$\times$ 9

10. 0.02
$\times$ 3

11. 9.12
$\times$ 4

12. 27.3
$\times$ 8

13. 4.007
$\times$ 4

14. 3.13
$\times$ 3

15. 5.02
$\times$ 8

16. 6.31
$\times$ 6

17. 8.01
$\times$ 5

18. 4.325
$\times$ 7

19. 0.762
$\times$ 2

20. 0.08
$\times$ 8

21. 6×3.04

22. 2.6×9

23. 13×2.5

24. 1.006×4

25. Evaluate $42.3t$ if $t = 110$.

26. Evaluate $231a$ if $a = 3.6$

Write each number in standard form.

27. 3.15×10^4

28. 2.6×10^5

29. 5×10^6

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4-3 Practice: Skills

Dividing Decimals by Whole Numbers

Divide. Round to the nearest tenth if necessary.

1. $3\overline{)9.6}$

2. $5\overline{)5.15}$

3. $2\overline{)16.08}$

4. $7\overline{)24.64}$

5. $11\overline{)132.22}$

6. $16\overline{)142.4}$

7. $79.2 \div 9$

8. $47.4 \div 15$

9. $217.14 \div 21$

10. $5\overline{)34.65}$

11. $8\overline{)20.72}$

12. $10\overline{)72.6}$

13. $15\overline{)57.48}$

14. $25\overline{)264.5}$

15. $34\overline{)317.594}$

16. $122.32 \div 11$

17. $42.48 \div 18$

18. $323.316 \div 24$

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5-2 Practice: Skills

Simplifying Fractions

Replace each ● with a number so that the fractions are equivalent.

1. $\frac{1}{5} = \frac{●}{35}$

2. $\frac{●}{15} = \frac{2}{5}$

3. $\frac{1}{6} = \frac{●}{24}$

4. $\frac{10}{15} = \frac{2}{●}$

5. $\frac{4}{●} = \frac{20}{45}$

6. $\frac{1}{●} = \frac{4}{16}$

7. $\frac{1}{3} = \frac{27}{●}$

8. $\frac{●}{7} = \frac{8}{28}$

9. $\frac{18}{24} = \frac{●}{4}$

Write each fraction in simplest form. If the fraction is already in simplest form, write *simplest form*.

10. $\frac{1}{2}$

11. $\frac{8}{10}$

12. $\frac{20}{60}$

13. $\frac{6}{15}$

14. $\frac{15}{60}$

15. $\frac{7}{8}$

16. $\frac{27}{81}$

17. $\frac{7}{12}$

18. $\frac{28}{36}$

19. $\frac{90}{100}$

20. $\frac{8}{21}$

21. $\frac{14}{35}$

22. $\frac{23}{46}$

23. $\frac{9}{13}$

24. $\frac{12}{27}$

25. $\frac{4}{12}$

26. $\frac{75}{100}$

27. $\frac{60}{110}$

28. $\frac{10}{25}$

29. $\frac{15}{19}$

30. $\frac{20}{28}$

31. $\frac{49}{56}$

32. $\frac{49}{70}$

33. $\frac{24}{64}$

Lesson 5–2

NAME _____ DATE _____ PERIOD _____

6-5 Practice: Skills

Adding and Subtracting Mixed Numbers

Add or subtract. Write in simplest form.

1. $\begin{array}{r} 2\frac{1}{4} \\ +\ 3\frac{3}{4} \\ \hline \end{array}$

2. $\begin{array}{r} 4\frac{5}{6} \\ -\ 3\frac{1}{6} \\ \hline \end{array}$

3. $\begin{array}{r} 8\frac{5}{12} \\ -\ 1\frac{1}{12} \\ \hline \end{array}$

4. $\begin{array}{r} 2\frac{3}{7} \\ +\ 4\frac{2}{7} \\ \hline \end{array}$

5. $\begin{array}{r} 6\frac{2}{3} \\ +\ 3\frac{4}{9} \\ \hline \end{array}$

6. $\begin{array}{r} 8\frac{7}{12} \\ -\ 5\frac{5}{12} \\ \hline \end{array}$

7. $9\frac{3}{4} - 7\frac{1}{2}$

8. $2\frac{1}{8} + 5\frac{7}{8}$

9. $1\frac{2}{3} + 4\frac{8}{9}$

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

11. $6\frac{5}{6} + \frac{3}{8}$

12. $9\frac{4}{5} + 2\frac{2}{3}$

13. $5\frac{2}{3} - \frac{1}{6}$

14. $8\frac{1}{2} - 5\frac{3}{10}$

15. $4\frac{3}{5} + 9\frac{1}{3}$

16. $7\frac{11}{12} - 3\frac{7}{12}$

17. $5\frac{8}{9} - 3\frac{1}{6}$

18. $8\frac{3}{4} + 6\frac{2}{5}$

Evaluate each expression if $a = 1\frac{2}{3}$, $b = \frac{1}{4}$, and $c = 3\frac{5}{6}$.

19. $a + b$

20. $c + a$

21. $c - b$

22. $c - a$

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7-5 Practice: Skills

Dividing Mixed Numbers

Divide. Write in simplest form.

1. $2\frac{5}{6} \div 6\frac{4}{5}$

2. $4\frac{6}{7} \div 3\frac{2}{5}$

3. $31\frac{2}{3} \div 7\frac{3}{5}$

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

5. $6 \div 2\frac{2}{5}$

6. $1\frac{3}{4} \div \frac{3}{4}$

7. $2\frac{1}{2} \div 4\frac{2}{7}$

8. $3\frac{1}{9} \div 7$

9. $6\frac{2}{3} \div \frac{4}{5}$

10. $1\frac{2}{9} \div 1\frac{5}{6}$

11. $6\frac{3}{4} \div 1\frac{7}{20}$

12. $\frac{7}{10} \div 2\frac{5}{8}$

13. $3\frac{5}{6} \div 1\frac{1}{3}$

14. $1\frac{7}{9} \div \frac{4}{9}$

15. $5 \div 8\frac{3}{4}$

16. $2\frac{2}{9} \div 1\frac{1}{3}$

17. $3\frac{1}{5} \div 1\frac{7}{9}$

18. $6\frac{1}{6} \div 3\frac{1}{3}$

Evaluate each expression if $a = 1\frac{3}{8}$, $b = 4\frac{5}{7}$, and $c = 3\frac{3}{10}$.

19. $b \div a$

20. $a \div c$

21. $c \div b$

For Exercises 22–24, evaluate each expression if $a = 3\frac{3}{4}$, $b = 1\frac{1}{2}$, and $c = 4\frac{1}{8}$.

22. $a \div b$

23. $c \div a$

24. $b \div c$

25. What is the value of $r \div t$ if $r = 4\frac{1}{3}$ and $t = 2\frac{3}{5}$?

26. If $x = 4\frac{2}{3}$ what is $1\frac{1}{6} \div x$?

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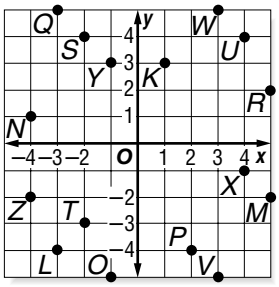
8-6 Practice: Skills

The Coordinate Plane

For Exercises 1–8, use the coordinate plane at the right. Identify the point for each ordered pair.



1. $(-2, 4)$

2. $(-2, -3)$

3. $(4, 4)$

4. $(3, -5)$

5. $(3, 5)$

6. $(4, -1)$

7. $(-1, 3)$

8. $(-4, -2)$

For Exercises 9–16, use the coordinate plane above. Write the ordered pair that names each point. Then identify the quadrant where each point is located.

9. K

10. L

11. M

12. N

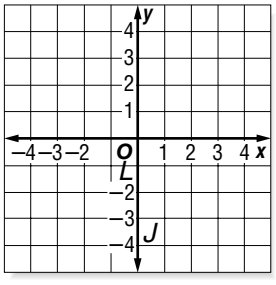
13. O

14. P

15. Q

16. R

Graph and label each point on the coordinate plane at the right.



17. $A(-5, 2)$

18. $I(2, 1)$

19. $J(1, -3)$

20. $B(-5, -1)$

21. $C(3, 3)$

22. $K(-1, 2)$

23. $L(0, -1)$

24. $D(2, -5)$

25. $E(3, -2)$

26. $M(-4, -5)$

27. $N(1, 5)$

28. $F(-2, 5)$

29. $G(-1, -4)$

30. $O(5, -5)$

Lesson 8–6

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8-2 Practice: Skills

Adding Integers

Add. Use counters or a number line if necessary.

1. $6 + (-8)$

2. $9 + (-3)$

3. $-5 + (-4)$

4. $-13 + 7$

5. $-2 + 11$

6. $10 + (-6)$

7. $4 + (-4)$

8. $-7 + (-4)$

9. $-12 + 3$

10. $-5 + 14$

11. $-10 + (-2)$

12. $6 + (-1)$

13. $-3 + 4$

14. $+4 + (+4)$

15. $-2 + (-1)$

16. $6 + (-3)$

17. $8 + 7$

18. $-5 + (-6)$

19. $-11 + 4$

20. $-6 + 13$

21. $-12 + 6$

22. $-7 + 12$

23. $9 + (-9)$

24. $-5 + (-5)$

25. $3 + (-11)$

26. $-14 + 9$

27. $15 + (-7)$

28. $-15 + 15$

29. What is the sum of positive six and negative four?

30. What is the sum of negative five and positive five?

31. Find the result when negative eight is added to positive 4.

32. Find the sum of negative 1 and positive 7.

33. **ALGEBRA** Find the value of $c + d$ if $c = -4$ and $d = 6$.

Lesson 8–2

NAME _____ DATE _____ PERIOD _____

8-3 Practice: Skills

Subtracting Integers

Subtract. Use counters if necessary.

1. $9 - 4$

2. $10 - 7$

3. $+8 - 5$

4. $+12 - 6$

5. $-3 - (-7)$

6. $5 - (-9)$

7. $-8 - 7$

8. $2 - 6$

9. $-16 - (-9)$

10. $4 - (-15)$

11. $-18 - 5$

12. $-6 - 6$

13. $7 - 4$

14. $-4 - (-2)$

15. $-8 - 10$

16. $9 - (-7)$

17. $3 - 12$

18. $-3 - (-10)$

19. $-13 - 7$

20. $-5 - (-2)$

21. $6 - 6$

22. $3 - 5$

23. $-8 - 6$

24. $-2 - (-2)$

25. $7 - (-4)$

26. $-16 - (-8)$

27. $12 - (-12)$

28. $-3 - 10$

29. $-1 - (-4)$

30. $9 - (-6)$

31. **ALGEBRA** Find the value of $a - b$ if $a = 5$ and $b = 8$.

32. **ALGEBRA** Find the value of $c - d$ if $c = -7$ and $d = -2$.

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8-4 Practice: Skills

Multiplying Integers

Multiply.

1. $6 \times (-4)$

2. -8×7

3. $-2 \times (-9)$

4. $5(-5)$

5. $-5(-3)$

6. $-4(8)$

7. $9(-2)$

8. $-5(-6)$

9. $3(-10)$

10. $-4(2)$

11. $-4(-4)$

12. $-9(6)$

13. $7(-3)$

14. $-2(-8)$

15. $-5(-10)$

16. $2(-1)$

17. $-3(6)$

18. $4(-5)$

19. $-7(7)$

20. $-2(-7)$

21. $-6(-1)$

22. $4(-3)$

23. $-6(-5)$

24. $-9(10)$

25. $-3(-8)$

26. $7(-5)$

27. $-2(2)$

28. $8(-8)$

29. $-9(1)$

30. $-7(-4)$

31. $-7(6)$

32. $-5(12)$

33. $-4(-8)$

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8-5 Practice: Skills

Dividing Integers

Divide.

1. $-4 \div 2$

2. $6 \div (-2)$

3. $-8 \div (-2)$

4. $3 \div (-3)$

5. $9 \div (+3)$

6. $-10 \div 5$

7. $56 \div (-7)$

8. $-45 \div 9$

9. $-12 \div (-6)$

10. $15 \div (-3)$

11. $-24 \div 6$

12. $-18 \div (-3)$

13. $48 \div (-8)$

14. $-40 \div 8$

15. $-20 \div (-5)$

16. $36 \div (-9)$

17. $-42 \div 7$

18. $-54 \div (-6)$

19. $20 \div (-10)$

20. $-12 \div 4$

21. $-35 \div (-5)$

22. $-27 \div 9$

23. $10 \div (-2)$

24. $-32 \div (-8)$

25. $-68 \div 4$

26. $30 \div (-3)$

27. $-36 \div (-4)$

28. $-16 \div (-8)$

29. $49 \div (-7)$

30. $-18 \div 2$

31. **ALGEBRA** For what value of v is $42 \div v = 6$ true?

32. **ALGEBRA** Find the value of $m \div n$ if $m = -24$ and $n = -4$.

33. **ALGEBRA** For what value of b is $b \div 4 = -9$ true?

34. **ALGEBRA** Find the value of $x \div y$ if $x = -50$ and $y = 10$.

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1-5 Practice: Skills

Order of Operations

Find the value of each expression.

1. $7 - 6 + 5$

2. $31 + 19 - 8$

3. $64 - 8 + 21$

4. $17 + 34 - 2$

5. $28 + (89 - 67)$

6. $(8 + 1) \times 12 - 13$

7. $63 \div 9 + 8$

8. $5 \times 6 - (9 - 4)$

9. $13 \times 4 - 72 \div 8$

10. $16 \div 2 + 8 \times 3$

11. $30 \div (21 - 6) \times 4$

12. $6 \times 7 \div (6 + 8)$

13. $88 - 16 \times 5 + 2 - 3$

14. $(2 + 6) \div 2 + 4 \times 3$

15. $4^3 - 24 \div 8$

16. $100 \div 5^2 \times 4^3$

17. $48 \div 2^3 + 25 \times (9 - 7)$

18. $45 \div 9 + 8 - 7 + 2 \times 3$

19. $18 + 7^2 \times (8 - 2) \div 3 + 8$

20. $(5^2 + 3^3) \times (81 + 9) \div 10$

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9-2 Practice: Skills

Solving Addition Equations

Solve each equation. Use models if necessary. Check your solution.

1. $x + 8 = 10$

2. $y + 3 = 7$

3. $z + 4 = 6$

4. $1 + a = 9$

5. $b + 2 = -4$

6. $5 + c = -1$

7. $g + 5 = 2$

8. $6 + h = 3$

9. $k + 7 = 5$

10. $8 = m + 2$

11. $-5 = 2 + n$

12. $4 + s = 1$

13. $-6 = z + 4$

14. $b + 6 = 7$

15. $7 + g = 4$

16. $n + 6 = 4$

17. $s + 5 = 9$

18. $-4 = x + 3$

19. $5 = 1 + k$

20. $8 + c = 3$

21. $9 + m = 5$

22. $-2 = 7 + a$

23. $h + 3 = -3$

24. $-5 = y + 4$

25. Find the value of r if $r + 7 = 2$.

26. If $z + 5 = 1$, what is the value of z?

Lesson 9–2

NAME _____ DATE _____ PERIOD _____

9-3 Practice: Skills

Solving Subtraction Equations

Solve each equation. Use models if necessary. Check your solution.

1. $a - 1 = 7$

2. $b - 2 = 1$

3. $3 = c - 1$

4. $x - 3 = -1$

5. $-3 = y - 4$

6. $2 = k - 4$

7. $m - 5 = -6$

8. $n - 6 = -9$

9. $-10 = s - 8$

10. $t - 9 = -1$

11. $v - 9 = -5$

12. $-6 = v - 7$

13. $3 = g - 6$

14. $-3 = h - 8$

15. $-5 = z - 7$

16. $z - 3 = 7$

17. $5 = f - 1$

18. $-1 = d - 2$

19. $e - 9 = -6$

20. $1 = t - 8$

21. $i - 5 = 4$

22. $g - 4 = 1$

23. $-3 = x - 2$

24. $y - 4 = -7$

25. If $r - 7 = -7$, what is the value of r?

26. Find the value of b if $b - 2 = 5$.

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9-4 Practice: Skills

Solving Multiplication Equations

Solve each equation. Use models if necessary. Check your solution.

1. $3a = 9$

2. $7b = 14$

3. $36 = 9c$

4. $-15 = 5x$

5. $-42 = 6y$

6. $8z = -16$

7. $-4m = 28$

8. $-2n = 8$

9. $-21 = 7s$

10. $-25 = -5r$

11. $-18 = -6t$

12. $-9p = -18$

13. $2x = 18$

14. $4w = 24$

15. $6g = 9$

16. $-32 = 2v$

17. $-18 = 3b$

18. $7h = -35$

19. $-8k = 20$

20. $14 = -4d$

21. $-72 = 9r$

22. $-3z = 27$

23. $5x = -35$

24. $28 = 8y$

25. Solve the equation $9y = 81$.

26. What is w if $2w = 16$?

Lesson 9–4