The Math Department at Quarry Lane School has a challenging and enriching curriculum. We want to ensure each student is well prepared for the following school year. It's important for our students to keep up with their math skill over for the long summer break. Studies indicate that students lose a huge percentage of what they learned from the prior school year. In order to be proactive, Quarry Lane School Math Department would like to provide you with the following math grade level supplements.

These packets are for your student to practice during the long summer break. Each packet contains practice worksheets. Your student can do the practice worksheets at their own pace. Please encourage your student to complete this work and grade it using the answer keys provided.

Have a safe and fun-filled summer!

Name: _____ Class: _____ Date: _____

## Summer Review for Rising 7th Grade

**Multiple Choice**
*Identify the letter of the choice that best completes the statement or answers the question.*

**Estimate. Round to the nearest whole number before you add, subtract, or multiply.**

____ 1. 7.47 – 5.56
a. about 2 b. about 3 c. about 1 d. about 0

____ 2. Use clustering to estimate 12.43 + 11.51 + 11.5 + 11.99.
a. about 46 b. about 48 c. about 52 d. about 40

____ 3. Find 24.791 – 7.5.
a. 32.291 b. 16.991 c. 17.391 d. 17.291

**Use mental math to find the sum.**

____ 4. 20.5 + 17.9 + 10.5
a. 49.4 b. 47.8 c. 49.9 d. 48.9

**Find the product.**

____ 5. 0.5 · 10 · 1
a. 6 b. 5 c. 11.5 d. 10.5

____ 6. $\frac{2}{3} \cdot 12$
a. 4 b. $12\frac{2}{3}$ c. 24 d. 8

____ 7. $1\frac{1}{4} \cdot 3\frac{2}{3}$
a. $4\frac{3}{12}$ b. $3\frac{1}{6}$ c. $4\frac{5}{6}$ d. $4\frac{7}{12}$

**Find the quotient.**

____ 8. –135 ÷ 15
a. $\frac{1}{9}$ b. –9 c. 9 d. $-\frac{1}{9}$

____ 9. What metric measure best describes the amount of juice in a full pitcher?
a. 0.072 kL b. 1 kg c. 3 L d. 50 mL

____ 10. Order the measurements from the least to the greatest.
2,720 mL 24.91 L 0.0268 kL
a. 2,720 mL, 24.91 L, 0.0268 kL c. 2,720 mL, 0.0268 kL, 24.91 L
b. 24.91 L, 0.0268 kL, 2,720 mL d. 0.0268 kL, 24.91 L, 2,720 mL

**Name:** _____

____ 11. Find the range from 72 to (–17).
a. –55 b. 55 c. –89 d. 89

**Find the difference.**

____ 12. 19.91 – 18.1
a. 2.81 b. 1.71 c. 1.81 d. 0.81

____ 13. You owe $5 to a friend. Write an integer to represent this situation.
a. |5| b. 5 c. –5 d. |–5|

**Solve the equation.**

____ 14. $9x - 11 = -38$
a. –5 b. –3 c. –18 d. –40

____ 15. $x + \frac{3}{4} = \frac{17}{18}$
a. 1 b. $\frac{7}{36}$ c. $\frac{10}{11}$ d. $1\frac{25}{36}$

**Use number sense to solve the equation.**

____ 16. $5x + 18 = 43$
a. 9 b. 61 c. 5 d. 12

____ 17. Find a solution to the inequality $x > -11$.
a. –15 b. –13 c. –11 d. –5

____ 18. Find a number that is NOT a solution of the inequality $x - 9 \leq 8$.
a. –8 c. 17
b. –1 d. none of these

____ 19. Which inequality has 20 as a solution?
a. $12 + m < -6$ b. $-6 + m > 12$ c. $12 + m = -6$ d. $-6 + m < 12$

**Solve the inequality.**

____ 20. $-0.3n \leq 5.4$
a. $n \leq -18$ b. $n \leq -1.8$ c. $n \geq -1.8$ d. $n \geq -18$

____ 21. $-2z + 5 \leq 35$
a. $z \leq -15$ b. $z \leq -23$ c. $z \geq -20$ d. $z \geq -15$

____ 22. Michael is the youngest person in the office. Judy is the oldest person in the office. The age difference between Michael and Judy is at most 35. If Michael is 27, which of the following CANNOT be Judy's age?
a. 63 b. 62 c. 60 d. 61

____ 23. Paul earns $5 per hour working after school. He needs at most $410 for a stereo system. Write and solve an inequality that describes the number of hours $h$ he must work to reach his goal.
a. $5h < 410$; less than 82 hours c. $5h \leq 410$; at most 82 hours
b. $5h \geq 410$; at most 82 hours d. $410h \leq 5$; less than 82 hours

**Name:** _____

____ 24. Chelsea makes $11.15 an hour working at Dr. Daleson's Car Clinic. She plans to buy a camera, which costs $353.10. Write and solve an inequality describing how many hours $h$ Chelsea will have to work to be able to buy the camera.

a. $11.15h < 353.10$; at least 31 hours
b. $11.15h > 353.10$; at most 31 hours
c. $11.15h \leq 353.10$; at most 32 hours
d. $11.15h \geq 353.10$; at least 32 hours

____ 25. Which number is divisible by 10 and 5?

a. 947 b. 310 c. 997 d. 712

____ 26. Which of these numbers is NOT divisible by 2, 3, 4, 5, 6, 8, and 9?

a. 4,222,368 b. 6,665,400 c. 1,273,320 d. 767,880

____ 27. Which statement is true?

a. $\frac{29}{35} < \frac{20}{30}$ b. $\frac{18}{32} > \frac{16}{32}$ c. $\frac{14}{21} > \frac{17}{24}$ d. $\frac{20}{15} < \frac{28}{23}$

____ 28. Which fraction is greater than $\frac{2}{5}$?

a. $\frac{1}{10}$ b. $\frac{1}{5}$ c. $\frac{5}{10}$ d. $\frac{4}{10}$

____ 29. Write $9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9$ using an exponent.

a. $9 \cdot 7$ b. $7^9$ c. $99^7$ d. $9^7$

____ 30. For which pair of numbers is the first number divisible by the second number?

a. 254,511 and 3 b. 707,772 and 5 c. 504,732 and 10 d. 17,139 and 4

____ 31. Tell which number is prime: 4, 29, 35, 58.

a. 29 b. 35 c. 58 d. 4

____ 32. Use common factors to write two fractions equivalent to $\frac{54}{126}$.

a. $\frac{18}{42}, \frac{9}{21}$ b. $\frac{20}{44}, \frac{18}{21}$ c. $\frac{18}{42}, \frac{20}{44}$ d. $\frac{13}{25}, \frac{9}{21}$

**Order from least to greatest.**

____ 33. $-0.33, 0.25, -\frac{1}{2}, -0.17$

a. $0.25, -0.17, -0.33, -\frac{1}{2}$
b. $-\frac{1}{2}, -0.17, -0.33, 0.25$
c. $-0.33, 0.25, -\frac{1}{2}, -0.17$
d. $-\frac{1}{2}, -0.33, -0.17, 0.25$

____ 34. Identify which of the statements is true.

a. $-36.5 > -36.07$
b. $-8.0329 > -8.045$
c. $-0.4 > -0.004$
d. $-2.6 > 2.521$

**Name:** _____

____ 35. A class is selling magazines as a fundraiser. Of the 200 magazines sold, Ananda sold $\frac{1}{8}$ of them. Gina sold 0.065 of the magazines. Ben sold $\frac{3}{100}$ of the magazines, and Fatima sold 0.105 of the magazines. Who sold the most magazines?

a. Fatima b. Gina c. Ben d. Ananda

**Estimate the difference.**

____ 36. $10\frac{1}{15} - 6\frac{1}{2}$

a. 5 b. 6 c. 4 d. 3

**Find the sum.**

____ 37. $16\frac{1}{9} + 5\frac{2}{3}$

a. $21\frac{7}{9}$ b. $21\frac{1}{6}$ c. $21\frac{1}{9}$ d. $21\frac{1}{4}$

____ 38. Melanie has a piece of cloth $3\frac{5}{6}$ yd long. How many $\frac{1}{3}$-yd pieces can be cut from the cloth?

a. 3 pieces b. 12 pieces c. 10 pieces d. 11 pieces

____ 39. A rectangular patio is 4 yd 1 ft long and 5 yd 2 ft wide. What is the perimeter of the patio in yards?

a. $24\frac{5}{9}$ b. 10 c. $73\frac{2}{3}$ d. 20

**Write a ratio for the situation in three ways, comparing the first quantity to the second quantity.**

____ 40. A zoo has 17 monkeys and 7 chimpanzees.

a. 7 to 17, 7 : 17, $\frac{7}{17}$

b. 7 to 24, 7 : 24, $\frac{7}{17}$

c. 17 to 7, 17 : 7, $\frac{17}{7}$

d. 17 to 24, 17 : 24, $\frac{17}{24}$

____ 41. Write three ratios equal to $\frac{4}{28}$.

a. $\frac{1}{8}, \frac{2}{16}, \frac{3}{24}$

b. $\frac{1}{7}, \frac{2}{14}, \frac{3}{21}$

c. $\frac{4}{28}, \frac{4}{32}, \frac{4}{36}$

d. $\frac{2}{12}, \frac{3}{18}, \frac{4}{24}$

____ 42. Which is the best buy?

a. \$24.24 for 12 bottles of juice

b. \$18.09 for 9 bottles of juice

c. \$16.32 for 8 bottles of juice

d. \$22.33 for 11 bottles of juice

**Name:** _____

____ 43. A store sells packages of pencils. Which package offers the best unit price?

a. 11 pencils for $2.97
b. 12 pencils for $2.88
c. 14 pencils for $3.64
d. 15 pencils for $3.75

____ 44. Mariah sold her skates. First she tried to sell them for half of what she originally paid. A week later, she took $14 off the price. Then she took another $4 off the price and sold the skates for $31. How much did Mariah originally pay for the skates?

a. $94 b. $98 c. $49 d. $80

____ 45. Determine which ratio forms a proportion with $\frac{10}{16}$ by writing the ratios in simplest form.

a. $\frac{35}{32}$ b. $\frac{25}{32}$ c. $\frac{20}{40}$ d. $\frac{35}{56}$

____ 46. Determine which ratio forms a proportion with $\frac{2}{7}$ by finding a common multiplier.

a. $\frac{10}{35}$ b. $\frac{10}{21}$ c. $\frac{6}{56}$ d. $\frac{16}{21}$

____ 47. Determine which ratio forms a proportion with $\frac{3}{21}$ by using cross products.

a. $\frac{2}{14}$ b. $\frac{5}{49}$ c. $\frac{2}{35}$ d. $\frac{7}{35}$

____ 48. Which ratios can form a proportion?

a. $\frac{9}{45}, \frac{8}{40}$ b. $\frac{8}{12}, \frac{12}{21}$ c. $\frac{8}{12}, \frac{12}{15}$ d. $\frac{9}{22}, \frac{14}{28}$

____ 49. Which ratios *cannot* form a proportion?

a. $\frac{8}{14}, \frac{12}{21}$ b. $\frac{3}{6}, \frac{12}{24}$ c. $\frac{3}{7}, \frac{8}{16}$ d. $\frac{5}{12}, \frac{15}{36}$

____ 50. Which ratios *cannot* form a proportion?

a. $\frac{2}{6.3}, \frac{5}{15.8}$ b. $\frac{3}{8}, \frac{1.5}{4}$ c. $\frac{2}{2.6}, \frac{10}{13}$ d. $\frac{5}{5.125}, \frac{4}{4.1}$

____ 51. Which of the following would be the most appropriate subject to draw at a scale of 1 : 1?

a. a bedroom
b. a micro-organism
c. New Jersey
d. a baseball

**Find a ratio equal to the ratio given.**

____ 52. 6 : 7

a. 14 : 12 b. 6 : 14 c. 12 : 28 d. 12 : 14

____ 53. 44 : 33

a. 3 : 4 b. 40 : 3 c. 4 : 3 d. 4 : 27

**Write the decimal as a percent.**

____ 54. 0.05

a. 0.05% b. 5% c. 50% d. 0.5%

**Name:** _____

____ 55. Thomas walks his dog for 37 minutes today, 5 more minutes than yesterday. Express as a percent his walking time today compared to his walking time yesterday. Round to the nearest percent.
a. 113% b. 115% c. 131% d. 118%

____ 56. Find 70% of 48.
a. 32.6 b. 35.6 c. 33.6 d. 34.6

**Use a proportion to solve. If necessary, round to the nearest percent.**

____ 57. 15 is 375% of what number?
a. 5 b. 4 c. 4 d. 56.25

____ 58. On a factory floor, 115 out of every 120 toy robots is defective. What percent of the toy robots are defective? Round your answer to the nearest hundredth.
a. 0.96% b. 95.83% c. 138% d. 1.04%

____ 59. A new law requires that 35% of an individual's income to be invested in the stock market. Your accounts show that you need to put $405 in the stock market this year. How much did you earn this year?
a. $1162.14 b. $1212.14 c. $1146.64 d. $1157.14

____ 60. Find the total cost of a $363.99 airline ticket with a sales tax of 9%.
a. $363.99 b. $396.75 c. $331.23 d. $396.19

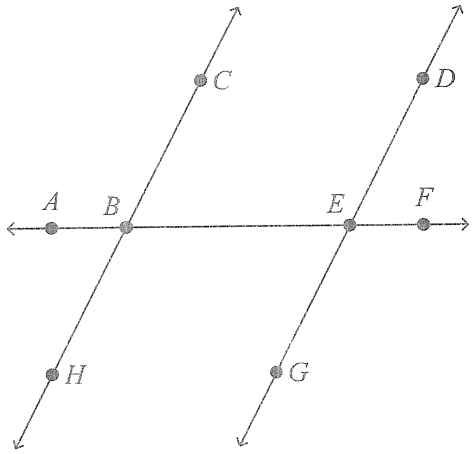
____ 61. A department store purchases a dress for $45. To sell the dress to customers, the price is marked up by 12%. You hand the clerk $60. How much change will you get back?
a. $15.00 b. $5.40 c. $9.60 d. $50.40

**Solve each problem by writing an equation. Check each answer in the original problem.**

____ 62. A used-car dealership has a 8%-off sale and sells a car for $8,000. Next door another dealer sells the same car for $9,500.
**a.** Find the original price of the car at the first dealership. Round to the nearest dollar.
**b.** If there was no 8%-off sale, how many dollars will you save by buying from the first dealership instead of the second dealership? Round to the nearest dollar.
a. $8,696; $804 c. $7,360; $1,500
b. $7,360; $804 d. $8,696; $1,500

**Name:** _____

____ 63. Name four rays that have point $B$ as an endpoint.




a. $\overleftrightarrow{AB}, \overleftrightarrow{FB}, \overleftrightarrow{CB}, \overleftrightarrow{HB}$

b. $\overline{BA}, \overline{BF}, \overline{BC}, \overline{BH}$

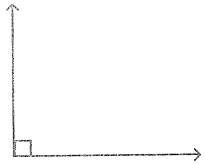
c. $\overleftrightarrow{AB}, \overleftrightarrow{FB}, \overleftrightarrow{CB}, \overleftrightarrow{HB}$

d. $\overrightarrow{BA}, \overrightarrow{BF}, \overrightarrow{BC}, \overrightarrow{BH}$

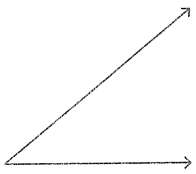
**Classify the angle as *acute*, *right*, *obtuse*, or *straight*.**

____ 64. Which is an obtuse angle?

a.

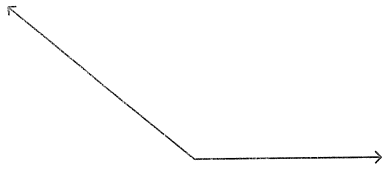


b.

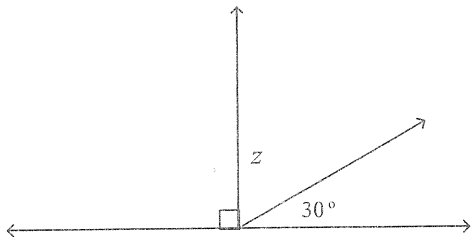


c.

d.



____ 65. Find the measure of $\angle z$.




a. 70°

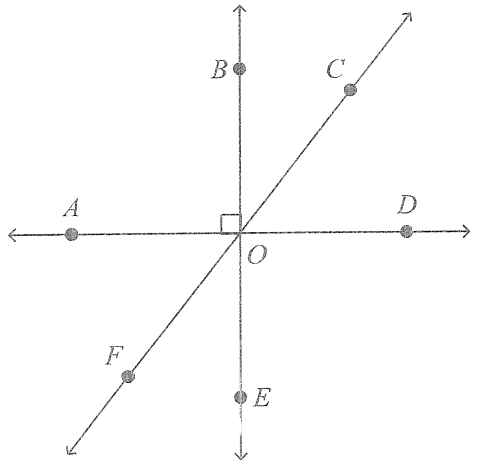
b. 60°

c. 150°

d. 75°

**Name:** _____

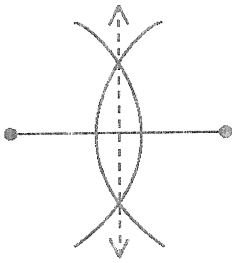
____ 66. Which angle or angles are complementary to $\angle AOF$?



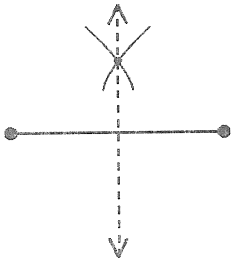

a. $\angle COE$ and $\angle FOB$
b. $\angle AOC$ and $\angle DOF$
c. $\angle BOC$ and $\angle EOF$
d. $\angle AOB$ and $\angle DOE$

____ 67. Which drawing shows the construction of a perpendicular bisector?

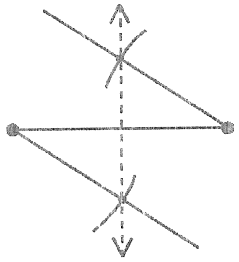
a.



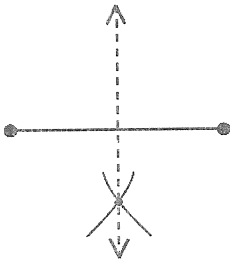
c.



b.



d.



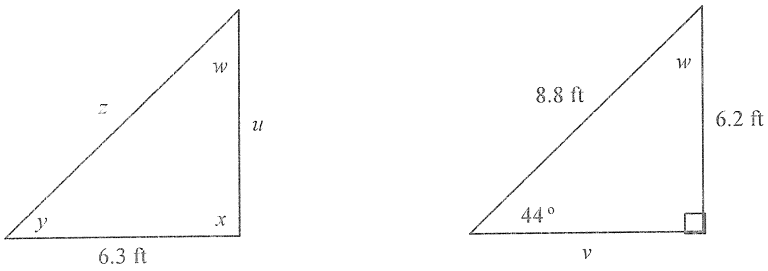
____ 68. Point $S$ is the midpoint of $\overline{RT}$. Complete the statement: $ST = 11$ in., $RT =$ ___.
a. 11 in.
b. 5.5 in.
c. 22 in.
d. none of these

**Classify the triangle by its sides.**

____ 69. Triangle $LPQ$ has side lengths of 12, 12, and 16.
a. scalene triangle
b. equilateral triangle
c. isosceles triangle
d. scalar triangle

**Name:** _____

____ 70. The two triangle-shaped gardens are congruent. Find the missing side lengths and angle measures.




a. $x = 90°$; $y = 44°$; $z = 8.8$ ft; $u = 6.2$ ft; $v = 6.3$ ft; $w = 136°$
b. $x = 90°$; $y = 44°$; $z = 8.8$ ft; $u = 6.2$ ft; $v = 6.3$ ft; $w = 46°$
c. $x = 90°$; $y = 44°$; $z = 8.8$ ft; $u = 6.3$ ft; $v = 6.2$ ft; $w = 46°$
d. $x = 180°$; $y = 44°$; $z = 12.5$ ft; $u = 6.2$ ft; $v = 6.3$ ft; $w = 46°$

# 7th Grade Packet

1. c. about 1
2. b. about 48
3. d. 17.291
4. d. 48.9
5. b. 5
6. d. 8
7. d. $4\frac{7}{12}$
8. b. -9
9. c. 3L
10. a. 2,720 mL, 24.91 L, 0.0268 kL
11. d. 89
12. c. 1.81
13. b. 5
14. b. -3
15. b. $\frac{7}{36}$
16. c. 5
17. d. -5
18. d. None of these
19. b. $-6+m \geq 12$
20. a. $n \leq -18$
21. a. $z \leq -15$
22. a. 63
23. c. $5h \leq 410$, at most 82 hours
24. d. $11.15h \geq 363.10$, at least 32 hours
25. b. 310
26. c. 1,273,320

(27) b. $\frac{18}{32} > \frac{16}{32}$

(28) c. $\frac{5}{10}$

(29) d. $9^7$

(30) a. 254, 511 and 3

(31) a. 29

(32) a. $\frac{18}{42}, \frac{9}{21}$

(33) d. $-\frac{1}{2}, -0.33, -0.17, 0.25$

(34) c. $-0.47 - 0.004$

(35) d. Anada

(36) c. 4

(37) a. $21\frac{7}{9}$

(38) d. 11 pieces

(39) d. 20

(40) c. 17 to 7, 17:7, $\frac{17}{7}$

(41) b. $\frac{1}{7}, \frac{2}{14}, \frac{3}{21}$

(42) b. $18.09 for 9 bottles

(43) b. 12 pencils per $2.88

(44) b. $98

(45) d. $\frac{35}{56}$

(46) a. $\frac{10}{35}$

(47) a. $\frac{2}{14}$

(48) a. $\frac{9}{45}, \frac{8}{40}$

(49) c. $\frac{3}{7}, \frac{8}{16}$

(50) a. $\frac{2}{6.3}, \frac{2}{15.8}$

(51) d. a baseball

(52) d. 12:14

(53) c. 4:3

(54) b. 5%

(55) b. 115%

(56) c. 33.6

(57) b and c: 4

(58) b. 95.83%

(59) d. 1157.14

(60) b. $396.75

(61) c. $9.60

(62) a. $8,696; $804

(63) d. $\overrightarrow{BA}, \overrightarrow{BF}, \overrightarrow{BC}, \overrightarrow{BH}$

(64) d.

(65) b. 60°

(66) c. $\angle BOC$ and $\angle EOF$

(67) a.

(68) c. 22 in.

(69) c. Isosceles triangle

(70) b. $x = 90°$; $y = 44°$; $z = 8.8$ ft, $u = 6.2$ ft, $v = 6.3$ ft; $w = 136°$