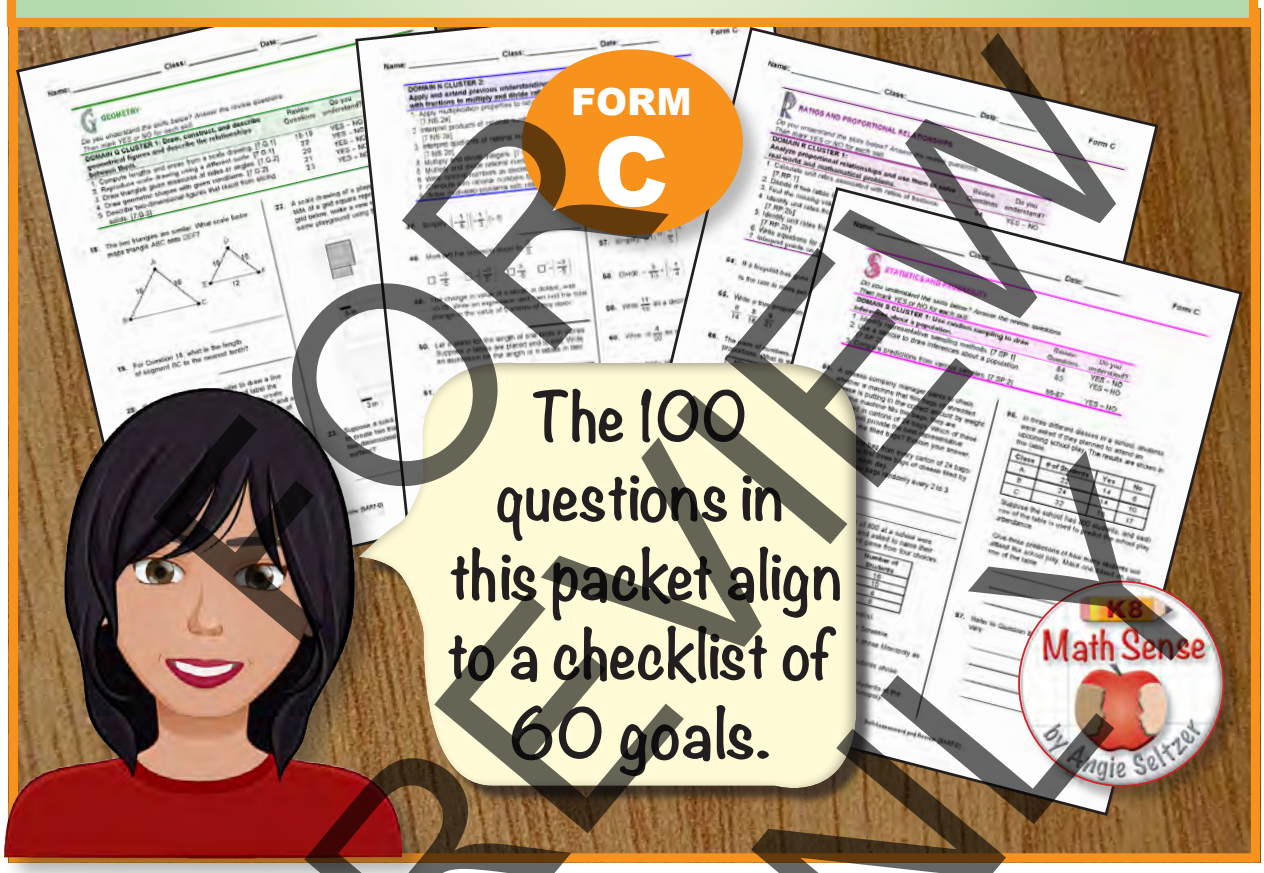
Grade 7 Math

SELF-ASSESSMENT & REVIEW PACKET



What's included?

- A list of **math goals** for each CCSS domain and cluster
- **100 review questions**, by cluster
- **11 pages** plus answers

This packet is a PDF so it can either be assigned electronically for distance learning, or printed at home or school.

Do your students know these important Grade 7 topics?

- Solving Equations & Inequalities
- Rational Numbers & Expressions
- Area & Circumference of Circles
- Similar Triangles
- Percent Increase & Decrease
- Probability of Compound Events
- Interpreting Data Distributions

CONTENTS

Grade 7 Math Self-Assessment & Review Packet Form C (Published 06/18/2015 & Updated 08/03/2020)

Teacher's Notes

About the Goals

This packet contains a list of goals for each cluster of content in the Common Core State Standards for Grade 7 mathematics. Cluster headings are taken directly from CCSS documents, and each cluster has 2 to 9 goals. The goals are clear and concise, in the style of typical chapter or lesson objectives.

About the Review Questions

For each Grade 7 goal there are one or more review questions, usually in short-answer format. Some questions are in multiple choice or multiple response format. This packet contains a total of 100 review questions that provide an excellent overview of all CCSS content for Grade 7.

Using Self-Assessment

Beside the goals/objectives are item numbers of the related questions. For each goal, students should write *Yes* or *No* to indicate whether they understand the content.

DOMAIN S CLUSTER 2: Draw informal comparative inferences about two populations.	Review Questions	Do you understand?
1. Visually compare the centers and spreads of distributions on dot plots. [7.SP.3]	88	YES – NO
2. Use measures of center and variability to make inferences. [7.SP.4]	89-91	YES – NO

If desired, a parent or teacher may mark the goals that students have mastered. You may want to recheck students' mastery of the same goals later in the year using parallel forms of this packet.

About the Domain Icons

Each domain is represented by a letter-shaped icon that includes elements to symbolize key content. For example, the "E" icon includes variables and the "S" icon includes a circle graph and a spinner. Domain icons provide a quick way to identify the domain or strand of content on the pages.

Distance Learning File Tips

You may assign this file or individual pages in a password protected classroom management system. Students can type answers into a separate file, or write answers on paper and submit as a photo. If your system has an option of adding an annotation layer to a PDF, you can have students type or draw answers on that layer and submit the annotated PDF.

Follow-Up Suggestions

► Try parallel or more advanced review packets.

If students grasp most concepts, download and review the next grade level and/or review this level again in four to six weeks.

► If necessary, review math from the prior grade.

If students struggle with a lot of concepts, try easier review packets or online practice games from various websites or activity books.

► Try printable card games.

Card games are available for the topics listed below, Kids can play easy games with an aide, a friend, parents, or other family members. The sets are numbered and color coded to match the clusters and goals.

Versatile, fun, printable games provide extra practice and strengthen concepts.

Card Games for Grade 7

- 7E11 Simplifying Linear Expressions
- 7E12 Expressions for Percent More & Less
- 7G22 Circumference & Area of Circles
- 7G22 Area and Perimeter of Rounded Shapes (4 Card Sets)
- 7G25 Volume of Rectangular Prisms
- 7N11-C Adding Integers Using Chips
- 7N11-N Adding Integers on a Number Line
- 7N12 Relating Subtraction of Integers to Addition
- 7N13 FREE Distance Between Integers on a Number Line
- 7N24-N Multiplying Integers on the Number Line
- 7N24-D Relating Division of Integers to Multiplication
- 7R12 Equivalent Rates
- 7R21 Tax and Interest
- 7S33 Simple Probability

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Angie Seltzer

Name: _____ Class: _____ Date: _____ Form C

Grade 7 Self-Assessment & Review

EXPRESSIONS AND EQUATIONS

Do you understand the skills below? Answer the review questions.
Then mark YES or NO for each skill.

DOMAIN E CLUSTER 1: Use properties of operations to generate equivalent expressions.	Review Questions	Do you understand?
1. Add and subtract linear expressions with rational coefficients. [7.EE.1]	1-3	YES – NO
2. Expand or factor linear expressions. [7.EE.2]	4-5	YES – NO
3. Interpret related expressions in real situations. [7.EE.2]	6	YES – NO

DOMAIN E CLUSTER 2: Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	Review Questions	Do you understand?
1. Use operations with whole numbers to solve multi-step problems. [7.EE.3]	7	YES – NO
2. Use fractions to solve multi-step problems. [7.EE.3]	8-9	YES – NO
3. Use decimals to solve multi-step problems. [7.EE.3]	10	YES – NO
4. Assess reasonableness of answers by using estimation. [7.EE.3]	11	YES – NO
5. Solve linear equations of the form $px + q = r$ and $p(x + q) = r$. [7.EE.4a]	12-13	YES – NO
6. Write linear equations to solve word problems. [7.EE.4a]	14	YES – NO
7. Relate algebraic solutions to arithmetic solutions. [7.EE.4a]	15	YES – NO
8. Write and solve linear inequalities for situations. [7.EE.4b]	16	YES – NO
9. Graph and interpret solutions to inequalities. [7.EE.4b]	17	YES – NO

1. Simplify by adding and/or subtracting.
$8.2k - (-6) - 4.19k + 5.31$

_____

2. Subtract.
$\frac{3}{8}n - \frac{9}{16}n$

_____

3. What is the difference?
$5.64x - (-4.36x)$

_____

4. Mark (✔) the choice(s) equivalent to $-3(8c - 5)$. There may be more than one answer.

☐ $-24c - 5$ ☐ $3(-8c + 5)$

☐ $-24c + 15$ ☐ $-9c$

5. Simplify.

$0.5(x - 2.6y) - 0.5(x + 2.4y)$

_____

6. A mattress is on sale for 35% off. Let m be the original price. Mark (✔) the choice(s) that can represent the sale price of the mattress.

☐ $m - 0.35m$ ☐ $1.35m$

☐ $m - 0.35$ ☐ $0.65m$

DOMAIN E CLUSTER 2: See goals on page 1.

7. An auditorium has 8 sections of 180 seats and 4 sections of 135 seats. If people are sitting in 1,235 seats, how many seats are empty?

_____

8. A large rectangular mural is $8\frac{1}{2}$ feet long and has an area of $42\frac{1}{2}$ square feet. What is the perimeter of the mural?

_____

9. What value of g makes the equation true?

$$\frac{3}{10} + 5\frac{2}{5} = \frac{g}{50} + 2\frac{7}{10}$$

_____

10. Jen was earning $17.20 per hour at the beginning of one year, then got a 10% raise. Later in the same year, she got a 5% raise. After the second raise, how much was she earning per hour? Round to the nearest cent.

_____

11. A storage box is about 12 inches wide, 16 inches long, and 11 inches tall. Which is the best estimate for the volume of the box?

A. 39 inches
B. 1,000 square inches
C. 1 cubic foot
D. 3 cubic feet

12. Solve: $11.5k - 16.3 = 15.9$

_____

13. What is the solution to $70 = 3.5(n - 0.4)$?

_____

14. Melody spent $56.60 for art supplies. She bought 6 tubes of oil paint and one canvas. The canvas cost $15.50 and the tubes of paint were equally priced. How much did she spend on each tube of paint?

_____

15. The length of a rectangular room is 12 feet and the width is 15 feet. Find the area of the room in square yards. Show your work.

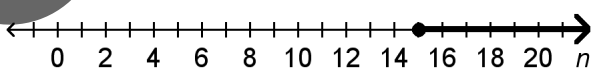
_____

16. Tyler can spend up to $16 for peaches that are $1.25 per pound. Write and solve an inequality for this situation. Use p to stand for the number of pounds.

_____

_____

17. This number line shows values of n that are solutions to an inequality. Write the inequality.



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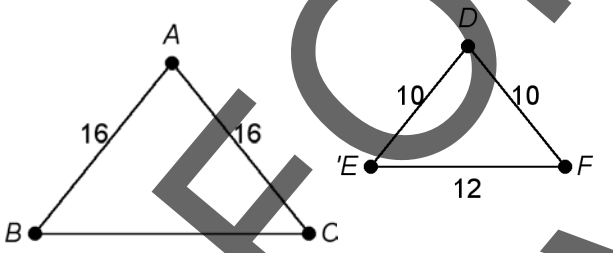
Name: _____ Class: _____ Date: _____ Form C

GEOMETRY

Do you understand the skills below? Answer the review questions. Then mark YES or NO for each skill.

DOMAIN G CLUSTER 1: Draw, construct, and describe geometrical figures and describe the relationships between them.	Review Questions	Do you understand?
1. Compute lengths and areas from a scale drawing. [7.G.1]	18-19	YES – NO
2. Reproduce scale drawing using a different scale. [7.G.1]	22	YES – NO
3. Draw triangles given measures of sides or angles. [7.G.2]	20	YES – NO
4. Draw geometric shapes with given conditions. [7.G.2]	21	YES – NO
5. Describe two-dimensional figures that result from slicing solids. [7.G.3]	23	YES – NO

18. The two triangles are similar. What scale factor maps triangle *ABC* onto *DEF*?



_____

19. For Question 18, what is the length of segment *BC* to the nearest tenth?

_____

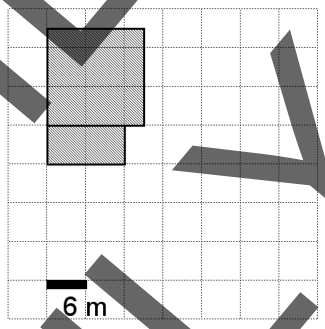
20. On separate paper, use a ruler to draw a line segment about 3 inches long and label the endpoints *F* and *G*. With a protractor, create triangle *FGH* with a 40-degree angle at *F* and a 65-degree angle at *G*. What is the measure of angle *H*?

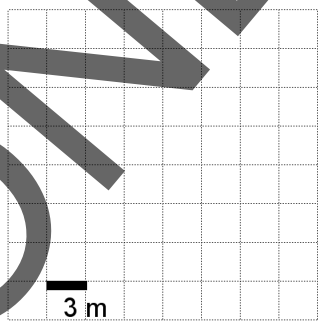
_____

21. On separate paper, draw a right triangle with two legs that measure 8.3 cm and 5.1 cm. Then measure the hypotenuse of the triangle (the longest side) to the nearest tenth centimeter.

_____

22. A scale drawing of a playground is shown. Each side of a grid square represents 6 meters. On the grid below, make a new scale drawing of the same playground using the scale shown.





23. Suppose a solid cube is sliced in half diagonally to create two triangular prisms. What two-dimensional shape is formed by each cut surface?

_____

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DOMAIN G CLUSTER 2: **Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.**	Review Questions	Do you understand?
1. Recognize relationships between parts of a circle. [7.G.4]	24	YES – NO
2. Apply formulas for circumference and area of circles. [7.G.4]	25-27	YES – NO
3. Solve equations to find supplementary, complementary, vertical, and adjacent angles. [7.G.5]	28-29	YES – NO
4. Solve problems involving area and surface area. [7.G.6]	30-31	YES – NO
5. Solve problems involving volume of rectangular prisms. [7.G.6]	32	YES – NO

24. The diameter of a circle is 82 inches long. What is the radius?

_____

25. What is the circumference of a circle that has a radius of 4.2 meters? Round the answer to the nearest tenth.

_____

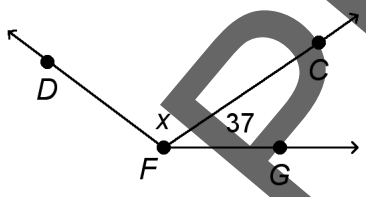
26. What is the area of a circle that has a diameter of 12.8 centimeters? Round the answer to the nearest whole number.

_____

27. The diameter of a circle is 20 meters and its area is $n\pi$ square meters. What is the value of n?

_____

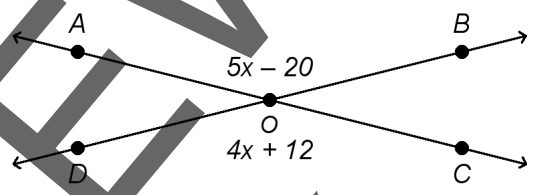
28. In the figure below, the measure of angle *DFG* is 144 degrees. Write and solve an equation with x to find the measure of angle *DFC*.



_____

_____

29. Expressions for the measures of $\angle AOB$ and $\angle DOC$ are shown. Write and solve an equation to find x. Then find $m\angle AOB$.



Equation: _____

x = _____

m∠*AOB* = _____

30. The rectangular base of a prism has an area of 42 square inches and the volume is 210 cubic inches. What is the height of the prism?

_____

31. One leg of a right triangle is 41 centimeters long, and the area of the triangle is 369 square centimeters. What is the length of the second leg of the triangle?

_____

32. The volume of a box is 2.5 cubic feet. The length is 24 inches and the width is 15 inches. What is the height of the box in inches?

_____

Name: _____ Class: _____ Date: _____ Form C

THE NUMBER SYSTEM

Do you understand the skills below? Answer the review questions. Then mark YES or NO for each skill.

DOMAIN N CLUSTER 1: Apply and extend previous understandings of operations with fractions to add and subtract rational numbers.	Review Questions	Do you understand?
1. Relate sums of rational numbers to movements or situations. [7.NS.1ab]	33-35	YES – NO
2. Relate subtraction of rational numbers to adding the opposite. [7.NS.1c]	36-37	YES – NO
3. Find distance between rational numbers on a number line. [7.NS.1c]	38	YES – NO
4. Add and subtract integers. [7.NS.1d]	39-43	YES – NO
5. Add and subtract rational numbers. [7.NS.1d]	44-46	YES – NO

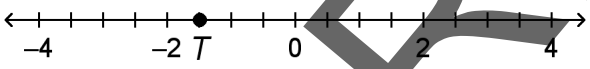
33. In football, a gain can be shown as a positive number, while a loss is negative. Write an expression with integers to represent a loss of 9 yards followed by a loss of 3 yards. Then find the overall gain or loss.

_____

34. A plane was flying at an altitude of 19,500 feet above the ocean and then ascended 8,500 feet. Next it descended 3,500 feet and leveled off. What was the new altitude?

_____

35. Write numbers for the two points that are 2.5 units from Point *T*.



_____

36. Adding –29 is the same as subtracting what number?

_____

37. Mark (✔) the choice(s) with the same value as –23 + 16.

☐ – |16 – 23|
☐ – (23 + 16)
☐ 23 – 16
☐ – (23 – 16)

38. What is the distance between the two numbers shown on the number line?

_____

39. What is the sum of –58 and 43?

_____

40. Add: –500 + –150

_____

41. Subtract: –40 – (–70)

_____

42. Subtract: 220 – 320

_____

43. Simplify.
–7 + 11 + 16 – 14 + (–7) + (–10)

_____

44. Simplify.
$\frac{1}{2} + \left(-\frac{9}{10}\right) - \frac{3}{10}$

_____

45. What is the value of the expression?
–6.2 – (–0.7 – 4.5)

_____

46. Simplify: $-\frac{7}{10}$ + –1 + –0.004
Write the answer as a decimal.

_____

Name: _____ **Class:** _____ **Date:** _____ **Form C**

DOMAIN N CLUSTER 2: Apply and extend previous understandings of operations with fractions to multiply and divide rational numbers.	Review Questions	Do you understand?
1. Apply multiplication properties to rational numbers. [7.NS.2a]	47-48	YES – NO
2. Interpret products of rational numbers in real situations. [7.NS.2a]	49	YES – NO
3. Interpret quotients of rational numbers in real situations. [7.NS.2b]	50	YES – NO
4. Multiply and divide integers. [7.NS.2b]	51-54	YES – NO
5. Multiply and divide rational numbers. [7.NS.2c]	55-58	YES – NO
6. Write rational numbers as decimals. [7.NS.2d]	59-60	
7. Compute with rational numbers to solve problems. [7.NS.3]	61	YES – NO
8. Solve multi-step problems with rational numbers. [7.NS.3]	62-63	YES – NO

47. Simplify: $\left(-\frac{1}{6}\right)\left(-\frac{1}{3}\right)(-3)$

_____

48. Mark (✔) the choice(s) equal to $\frac{3}{5}$.

☐ $\frac{-3}{-5}$ ☐ $-\left(\frac{-3}{5}\right)$ ☐ $\frac{3}{-5}$ ☐ $-\left(\frac{-3}{-5}\right)$

49. The change in value of a stock, in dollars, was –0.75. Write an expression and then find the total change in the value of 5 shares of this stock.

_____

50. Let *b* stand for the length of one table in inches. Suppose *n* tables are placed end-to-end. Write an expression for the length of *n* tables in feet.

_____

51. What is the product of –12 and –4?

_____

52. Divide: $40 \div (-8)$

_____

53. Simplify: –40(30)

_____

54. Simplify: $\frac{150}{-50}$

_____

55. Multiply: $5(-8)\left(-\frac{1}{2}\right)\left(-2\frac{1}{4}\right)(-10)$

_____

56. Simplify: $-9\left(-6\frac{1}{3}\right) \div 2$

_____

57. Simplify: $(-1)^{10}\left(\frac{1}{5}\right)^2$

_____

58. Divide: $-\frac{3}{10} \div \left(-\frac{1}{4}\right)$

_____

59. Write $\frac{11}{16}$ as a decimal.

_____

60. Write $-9\frac{4}{50}$ as a decimal.

_____

61. How many whole pieces of rope each $2\frac{1}{2}$ yards long can be cut from a rope that is $24\frac{1}{2}$ yards long?

_____

62. Evaluate the expression.

$30(-0.2)(1.1) + 22(0.03)(10) - (5.3)(0.2)$

_____

63. What is the value of $-4\left[-\frac{5}{6} \div \left(-\frac{2}{3}\right)\right]$?

_____

Name: _____ Class: _____ Date: _____ Form C

RATIOS AND PROPORTIONAL RELATIONSHIPS

Do you understand the skills below? Answer the review questions. Then mark YES or NO for each skill.

DOMAIN R CLUSTER 1: Analyze proportional relationships and use them to solve real-world and mathematical problems.	Review Questions	Do you understand?
1. Calculate unit rates associated with ratios of fractions. [7.RP.1]	64	YES – NO
2. Decide if two ratios form a proportion. [7.RP.2a]	65	YES – NO
3. Find the missing value in a proportion. [7.RP.2a]	66-67	YES – NO
4. Identify unit rates from tables, diagrams, or graphs. [7.RP.2b]	68	YES – NO
5. Identify unit rates from equations or verbal descriptions. [7.RP.2b]	69	YES – NO
6. Write equations for proportional relationships. [7.RP.2c]	70	YES – NO
7. Interpret points on graphs of proportions. [7.RP.2d]	71-72	YES – NO

64. If a bicyclist has gone $3\frac{1}{4}$ miles in $\frac{1}{4}$ hour, what is the rate in miles per hour?

_____

65. Write a true proportion using two of these ratios.

$\frac{6}{14}$ $\frac{8}{16}$ $\frac{9}{21}$

_____

66. The pairs of numbers in the table form proportions. What is the value of h?

Minutes	150	180	270
Hours	2.5	3	h

_____

67. Find the value of y in the proportion.

$\frac{8}{9} = \frac{9}{y}$

_____

68. The table shows a proportional relationship for two purchases of bags of peanuts at a shop. What is the price for one bag of peanuts?

Quantity	Price
3	$5.37
5	$8.95

_____

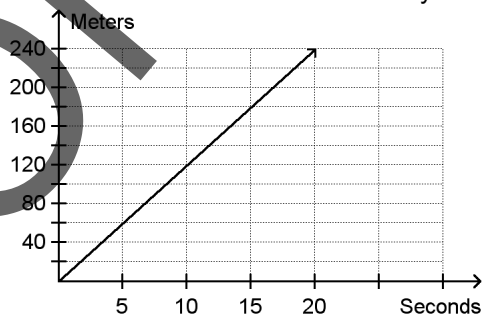
69. Nate wrote the equation $4p = 6k$ to represent a proportional relationship between the price in dollars, p, and a quantity k of juice bottles. When k is 1, what is the value of p?

_____

70. Whenever Jack slices 5 loaves of bread, he makes 80 slices. He makes 48 slices from 3 loaves of bread. Write an equation to find the number of slices, n, he cuts from b loaves of bread.

_____

71. A boat is moving at a constant rate. The graph shows the relationship between time and distance. What unit rate is shown by the graph?



_____

72. Refer to the graph in Question 71. How many seconds does it take to move 120 meters?

_____

Name: _____ **Class:** _____ **Date:** _____ **Form C**

DOMAIN R CLUSTER 2: Solve multi-step percent problems.	Review Questions	Do you understand?
1. Use percent to solve simple interest and tax problems. [7.RP.3]	73-74	YES – NO
2. Use percent to solve markup and markdown problems. [7.RP.3]	75-76	YES – NO
3. Use percent to solve problems about tips, commissions, and fees. [7.RP.3]	77-79	YES – NO
4. Solve problems about percent of increase or decrease. [7.RP.3]	80-82	YES – NO
5. Calculate percent error. [7.RP.3]	83	YES – NO

73. A person bought a hat for $19.98 plus 8% tax. What was the total price? Round to the nearest cent.

_____

74. Suppose you deposit $3,000 into a savings account. If the account pays 0.3% interest per month, how much money will be in the account after one month? Assume that you do not withdraw any money.

_____

75. The price of pair of shorts is marked down 30% from the original price of $42.00. What is the sale price?

_____

76. A store owner paid $8.90 each for bed pillows and sold them for $19.95 each. What was the percent markup to the nearest percent?

_____

77. Nicholas has an online bank account that charges a fee of 1.9% on each deposit. What is the fee for a deposit of $134.50? Round to the nearest cent.

_____

78. Justin and his family paid $85.00 for a restaurant meal. They want to leave a tip of 15% for their server. How much tip should they leave?

_____

79. Jessie sells shoes. She gets a bonus if she sells more than $1,000 of shoes in an 8-hour day. The bonus is 8% on the portion of sales above $1,000. How much is the bonus for a day that she sold $1,850 of shoes?

_____

80. A store raised the price of a backpack from $15.97 to $18.88. What was the percent increase in price? Round your answer to the nearest 0.1 percent.

_____

81. At a 3-day festival, 300 souvenir hats were sold on Friday. On Saturday, hat sales increased by 30% compared to Friday. On Sunday, the hat sales were 30% lower than on Saturday. How many hats were sold on Saturday and on Sunday?

Saturday: _____

Sunday: _____

82. Refer to Question 81. Were hat sales on Sunday the same as on Friday? Explain why or why not.

_____

_____

_____

_____

83. A student estimated the weight of a melon as 6.8 kilograms. If the actual weight was 7.5 kilograms, what was the percent error rounded to the nearest percent? (Hint: Compare the estimated weight to the actual weight.)

_____

Name: _____ Class: _____ Date: _____ Form C

STATISTICS AND PROBABILITY

Do you understand the skills below? Answer the review questions. Then mark YES or NO for each skill.

DOMAIN S CLUSTER 1: Use random sampling to draw inferences about a population.	Review Questions	Do you understand?
1. Identify representative sampling methods. [7.SP.1]	84	YES – NO
2. Use a sample to draw inferences about a population. [7.SP.2]	85	YES – NO
3. Compare predictions from various samples. [7.SP.2]	86-87	YES – NO

84. A cheese company manager wants to check whether a machine that fills bags of shredded cheese is putting in the correct amount by weight. After the machine fills the bags, they are packaged in cartons of 24 bags. Which of these methods will provide the best representative sample of the filled bags? Explain your answer.

(a) Weigh one bag from every carton of 24 bags.
(b) Weigh the first three bags of cheese filled by the machine each day.
(c) Weigh a few bags randomly every 2 to 3 hours.

_____

_____

85. Forty students out of 600 at a school were chosen at random and asked to name their favorite classic board game from four choices.

Board Game	Number of Students
Monopoly	16
Scrabble	10
Life	8
Checkers	6

Mark (✔) the true statement(s).

☐ 10% of students chose Scrabble.

☐ Twice as many students chose Monopoly as Life.

☐ Less than a fifth of the students chose checkers.

☐ More than half of the 600 students at the school are expected to favor Monopoly.

86. In three different classes in a school, students were asked if they planned to attend an upcoming school play. The results are shown in the table.

Class	# of Students	Yes	No
A	22	14	8
B	24	14	10
C	32	15	17

Suppose the school has 800 students, and each row of the table is used to predict the school play attendance.

Give three predictions of how many students will attend the school play. Make one based on each row of the table.

_____

_____

_____

87. Refer to Question 86. Explain why the predictions vary.

_____

_____

_____

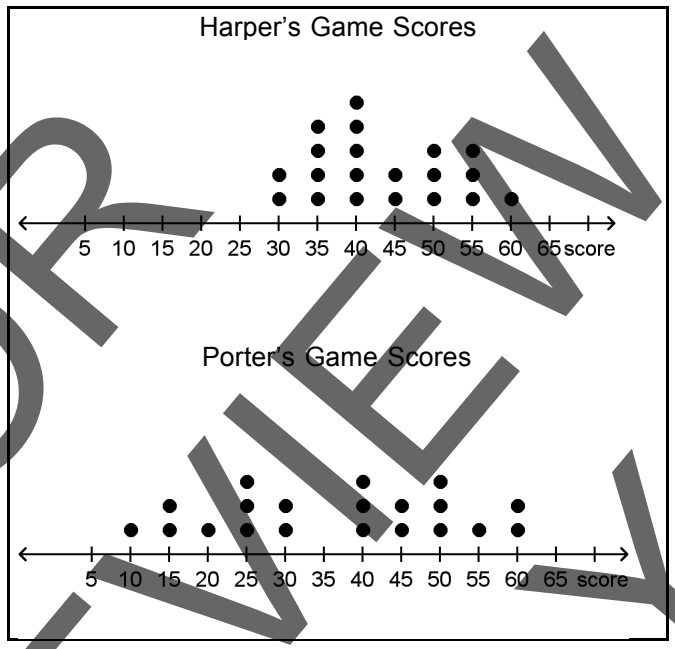
_____

Name: _____ **Class:** _____ **Date:** _____ **Form C**

DOMAIN S CLUSTER 2: Draw informal comparative inferences about two populations.	Review Questions	Do you understand?
1. Visually compare the centers and spreads of distributions on dot plots. [7.SP.3]	88	YES – NO
2. Use measures of center and variability to make inferences. [7.SP.4]	89-91	YES – NO

88. The dot plots at the right show game scores of two students, Harper and Porter.

Each student has played the game 20 times. Answer the questions about the scores by visually comparing the two dot plots.



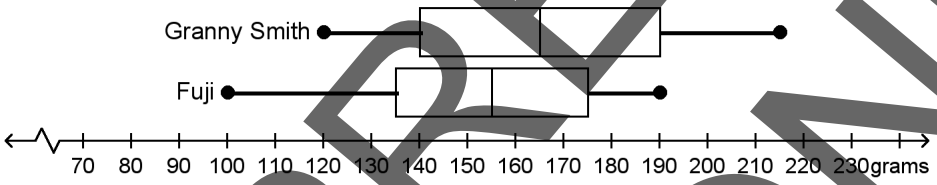
a. Which student's scores had a greater mean?

_____

b. Which student's scores had a greater mean absolute deviation?

_____

89. A family had two species of apple trees, Fuji and Granny Smith. They weighed 50 randomly selected apples from each tree and made this box plot.



What percent of the Granny smith apples weighed the same or more than the maximum weight of the Fuji apples?

_____

90. Use the data from Question 88. Suppose Harper plays the game 50 more times. For how many of the 50 games do you expect the score to be less than 40? (Hint: First find the probability that she scores less than 40.)

_____

91. Use the data from Question 89. Suppose the family weighs 200 randomly selected Granny Smith apples. Which is a reasonable estimate for the number of apples that would weigh 140 grams or less?

A. 25 **B.** 40 **C.** 50 **D.** 100

Name: _____ **Class:** _____ **Date:** _____ **Form C**

DOMAIN S CLUSTER 3: Investigate chance processes and develop, use, and evaluate probability models.	Review Questions	Do you understand?
1. Compare probabilities and relate to likelihoods of events. [7.SP.5]	92	YES – NO
2. Use relative frequency of outcomes to approximate probability. [7.SP.6]	93	YES – NO
3. Calculate simple probabilities based on equally-likely outcomes. [7.SP.7a]	94-95	YES – NO
4. Make predictions based on relative frequency, and compare results to predictions. [7.SP.7b]	96	YES – NO
5. Calculate probabilities of compound events. [7.SP.8a]	97-98	YES – NO
6. Create an organized list, table, or tree diagram for a compound event. [7.SP.8b]	99	YES – NO
7. Design and use simulations of compound events. [7.SP.8c]	100	YES – NO

92. If the probability of an event is 0.6, how likely is the event to occur?

A. somewhat likely
B. somewhat unlikely
C. very likely
D. very unlikely

93. Matt played a game 20 times. He scored above 300 points for 16 of the games. Based on his record, what is the probability that he will score above 300 points the next time he plays the game?

_____

94. The 11 letters of the word PROBABILITY are written on separate cards. If you draw a card randomly, what is the probability of drawing a card with the letter B?

_____

95. A spinner is $\frac{3}{8}$ red, $\frac{5}{12}$ blue, and $\frac{5}{24}$ green. What is the probability of spinning blue or green?

_____

96. Refer to Question 93. Suppose Matt plays the game 50 more times and his skill at the game stays the same. How many times would you expect his score to be above 300 points?

_____

97. Elizabeth spins a spinner that has 5 equal parts numbered 1 to 5, and tosses a die numbered 1 to 6. In one spin and one roll of the die, what is the probability that both numbers are greater than 4?

_____

98. Suppose you toss a fair coin four times. What is the probability of landing on tails all four times?

_____

99. For a picnic, Nan is planning to wear black pants with a red, blue, or purple shirt. She is also choosing from a checked, dotted, or striped scarf. She will wear flip flops or tennis shoes. On separate paper, draw a tree diagram that shows the combinations of a shirt, a scarf, and shoes. How many combinations are possible?

_____

100. At a carnival, a game involves spinning two spinners that are equally divided into blue, red, and green. A person spins the spinners and wins a prize if they both land on blue. In Excel, the formula "= RANDBETWEEN(1,3)" will generate a random whole number from 1 to 3. On separate paper, describe how to create a simulation of playing the carnival game 50 times.