Remote Learning Packet

Please submit scans of written work in Google Classroom at the end of the week.

Week 8: May 18-22, 2020

Course: 7th Grade Pre-Algebra

Teacher(s): Mrs. Frank leslie.frank@greatheartsirving.org
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Weekly Plan:

Monday, May 18
☐ Subtraction Speed Test
☐ Lesson 11-7, Independent Events

Tuesday, May 19
☐ Multiplication Speed Test
☐ Lesson 11-7, Independent Events

Wednesday, May 20
☐ Division Speed Test
☐ Lesson 11-8, Dependent Events

Thursday, May 21
☐ Roots Speed Test
☐ Lesson 11-8, Dependent Events

Friday, May 22
☐ attend office hours
☐ catch-up or review the week's work

Statement of Academic Honesty

I affirm that the work completed from the packet is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my child completed this work independently

_____
Student Signature

_____
Parent Signature

Monday, May 18

1. Your speed test for the day will be the subtraction speed test. Time yourself, and write the time it took you to complete the entire test at the top of the page. After you have finished the test, use the answer key to check for accuracy. **Write your score at the top of the page.**
2. Read lesson 11-7, Independent Events, on pages 420-421. Read it once. *Go back and read it again and work the example problem*. For extra help, please look at the following links:

https://www.khanacademy.org/math/ap-statistics/probability-ap/probability-multiplication-rule/v/compound-probability-of-independent-events

https://www.khanacademy.org/math/precalculus/x9e81a4f98389efdf:prob-comb/x9e81a4f98389efdf:compound-probability-of-ind-events-using-mult-rule/v/independent-events-3

https://www.khanacademy.org/math/ap-statistics/probability-ap/probability-multiplication-rule/v/independent-events-2

3. Mrs. Frank has made a video to go along with this lesson. Go to Google Classroom to look for the video titled: Pre-Algebra, 11-7, Independent Events, May 18th.
4. Do the **Class Exercises** at the bottom of **page 421, 1-6, all**.
5. Please do not look at your answer key each day until you have worked every problem. After you complete your homework, compare it to the answer key. Put away your pencil, and USE YOUR RED PEN. Correct any mistakes that you made in red pen.

Tuesday, May 19

1. Your speed test for the day will be multiplication.
2. Review lesson 11-7, Independent Events, on pages 420-421. Review the videos from yesterday's assignment.
3. Your homework assignment for today is:

   HW: 11-7, Independent Events, pp. 422-423, Written Exercises, #2-6, even, 10-14, even

4. Please do not look at your answer key each day until you have worked every problem. After you complete your homework, compare it to the answer key. Put away your pencil, and USE YOUR RED PEN. Correct any mistakes that you made in red pen

Wednesday, May 20

1. Your speed test for the day will be division.

2. Read lesson 11-8, Dependent Events, on pages 424-425. Read it once. Go back and read it again and work the example problems. For extra help, please look at the following links:

https://www.khanacademy.org/math/ap-statistics/probability-ap/probability-multiplication-rule/v/introduction-to-dependent-probability

https://www.khanacademy.org/math/precalculus/x9e81a4f98389efdf:prob-comb/x9e81a4f98389efdf:dependent-events-precalc/v/independent-events-1

3. Mrs. Frank has made a video to go along with this lesson. Go to Google Classroom to look for the video titled: Pre-Algebra, 11-8, Dependent Events, May 20th.
4. Do the **Class Exercises** at the top of page **426, 1-8, all**.
5. Please do not look at your answer key each day until you have worked every problem. After you complete your homework, compare it to the answer key. Put away your pencil, and USE YOUR RED PEN. Correct any mistakes that you made in red pen.

Thursday, May 21

1. Your speed test for the day will be roots. Challenge: This week, do the whole test! **Remember, you will not be graded on your speed or even your accuracy for speed tests. Do it as quickly as you can and write your time at the top of the page.** The idea is to get faster each week and to remember more roots each week!
2. Review lesson 11-8, Dependent Events, on pages 424-25. Review the videos from yesterday's assignment.
3. Your homework assignment for today is:
   HW: 11-8, Dependent Events, pp. 426-427, Written Exercises, #2-8, even, 14-18, even
4. You may look at the answer key BEFORE you work #2 and 4, just to see what they want you to do. (The problem description is not clear!) Please do not look at your answer key for the rest of the problems until you have worked every problem. After you complete your homework, compare it to the answer key. Put away your pencil, and USE YOUR RED PEN. Correct any mistakes that you made in red pen.

Friday, May 22

1. Come to office hours so that I can see your bright, smiling face!
2. Use this day to catch up on any assignments that you have not finished.
3. Submit your work with the following instructions: Make sure that you use a dark pencil so that we can read your homework. Write the **lesson number** and **day of the week** at the top of **every page**, including back pages or extra pages for each lesson. **Write your times on your speed tests!** And, most importantly, **scan and submit your lessons *in order***. (Monday, Tuesday, Wednesday, Thursday) Thank you!

5 - 2	12 - 4	11 - 9	9 - 7	16 - 8
10 - 6	14 - 5	14 - 7	14 - 6	8 - 3
15 - 7	11 - 4	12 - 7	7 - 2	15 - 6
12 - 9	6 - 3	10 - 3	7 - 4	10 - 8
9 - 4	13 - 7	6 - 2	13 - 9	9 - 3
12 - 6	17 - 9	10 - 5	8 - 6	18 - 9
16 - 9	8 - 4	11 - 3	11 - 6	13 - 5

5	12	11	9	16
- 2	- 4	- 9	- 7	- 8
3	8	2	2	8
10	14	14	14	8
- 6	- 5	- 7	- 6	- 3
4	9	7	8	5
15	11	12	7	15
- 7	- 4	- 7	- 2	- 6
8	7	5	5	9
12	6	10	7	10
- 9	- 3	- 3	- 4	- 8
3	3	7	3	2
9	13	6	13	9
- 4	- 7	- 2	- 9	- 3
5	6	4	4	6
12	17	10	8	18
- 6	- 9	- 5	- 6	- 9
6	8	5	2	9
16	8	11	11	13
- 9	- 4	- 3	- 6	- 5
7	4	8	5	8

Week 8 - Monday, 5/18

Pre-Algebra, 11-7, pg. 421, 1-6 all Class Exercises

1. Yes

$P(H) = \frac{1}{2}$

$\frac{1}{2} \cdot \frac{1}{2} = \boxed{\frac{1}{4}}$

2. Yes

$P(\text{red}) = \frac{1}{3}$

$\frac{1}{3} \cdot \frac{1}{3} = \boxed{\frac{1}{9}}$

3. No The marble must be replaced to make these events independent.

4. Yes

$P(3) = \frac{1}{6}$ $P(5) = \frac{1}{6}$

$\frac{1}{6} \cdot \frac{1}{6} = \boxed{\frac{1}{36}}$

5. Yes

$P(6, \text{red}) = \frac{1}{6}$ $P(6, \text{green}) = \frac{1}{6}$

$\frac{1}{6} \cdot \frac{1}{6} = \boxed{\frac{1}{36}}$

6. No One roll is just one event, which cannot be independent or dependent.

2 x 3	8 x 4	2 x 9	7 x 2	8 x 8
4 x 6	9 x 5	7 x 7	6 x 8	3 x 5
7 x 8	4 x 7	5 x 7	2 x 5	9 x 6
3 x 9	3 x 3	7 x 3	3 x 4	8 x 2
5 x 4	6 x 7	4 x 2	9 x 4	6 x 3
6 x 6	8 x 9	5 x 5	6 x 2	9 x 9
7 x 9	4 x 4	8 x 3	5 x 6	8 x 5

2 x 3 = 6	8 x 4 = 32	2 x 9 = 18	7 x 2 = 14	8 x 8 = 64
4 x 6 = 24	9 x 5 = 45	7 x 7 = 49	6 x 8 = 48	3 x 5 = 15
7 x 8 = 56	4 x 7 = 28	5 x 7 = 35	2 x 5 = 10	9 x 6 = 54
3 x 9 = 27	3 x 3 = 9	7 x 3 = 21	3 x 4 = 12	8 x 2 = 16
5 x 4 = 20	6 x 7 = 42	4 x 2 = 8	9 x 4 = 36	6 x 3 = 18
6 x 6 = 36	8 x 9 = 72	5 x 5 = 25	6 x 2 = 12	9 x 9 = 81
7 x 9 = 63	4 x 4 = 16	8 x 3 = 24	5 x 6 = 30	8 x 5 = 40

Week 8, Tuesday, May 19th, Pre-Algebra

HW 11-7, pp. 422-423, Written Exercises, # 2-16, even, #10-14, even

2. a. $\frac{1}{6} \cdot \frac{1}{6} = \boxed{\frac{1}{36}}$ $\quad P(6) = \frac{1}{6} \quad P(\text{not } 6) = \frac{5}{6}$

b. $\frac{5}{6} \cdot \frac{5}{6} = \boxed{\frac{25}{36}}$

c. P(one 6 in 2 rolls) = P(6 1st, "not 6" 2nd) + P("not 6" 1st, 6 2nd):

$\frac{1}{6} \cdot \frac{5}{6} + \frac{5}{6} \cdot \frac{1}{6} = \frac{5}{36} + \frac{5}{36} = \frac{10}{36} = \boxed{\frac{5}{18}}$

4. 4 red, 2 blue, 6 total

a. P(both red): $\frac{4}{6} \cdot \frac{4}{6} = \frac{2}{3} \cdot \frac{2}{3} = \boxed{\frac{4}{9}}$

b. P(both blue): $\frac{2}{6} \cdot \frac{2}{6} = \frac{1}{3} \cdot \frac{1}{3} = \boxed{\frac{1}{9}}$

c. P(both the same color): $\frac{4}{9} + \frac{1}{9} = \boxed{\frac{5}{9}}$

d. P(diff. colors) = P(red, then blue) + P(blue then red):

P(red, then blue) = $\frac{4}{6} \cdot \frac{2}{6} = \frac{2}{3} \cdot \frac{1}{3} = \frac{2}{9}$

P(blue then, red = $\frac{2}{6} \cdot \frac{4}{6} = \frac{1}{3} \cdot \frac{2}{3} = \frac{2}{9}$

$\frac{2}{9} + \frac{2}{9} = \boxed{\frac{4}{9}}$

6. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9

a. P(Lee/5) · P(Chris/6)

$\frac{1}{10} \cdot \frac{1}{10} = \boxed{\frac{1}{100}}$

b. P(Lee/odd) · P(Chris/even)

$\frac{5}{10} \cdot \frac{5}{10} = \frac{1}{2} \cdot \frac{1}{2} = \boxed{\frac{1}{4}}$

c. P(odd) · P(even) = P(Lee/odd) · P(Chris/even) + P(Chris/odd) · P(Lee/even)

$\frac{1}{2} \cdot \frac{1}{2} + \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4} + \frac{1}{4} = \frac{2}{4} = \boxed{\frac{1}{2}}$

Week 8, Tuesday, May 14th, Pre-Algebra

HW 11-7, second page

10. Game cube rolled 3 times. $P(6) = \frac{1}{6}$ $P(\text{not } 6) = \frac{5}{6}$

a. P (all 6's): $\frac{1}{6} \cdot \frac{1}{6} \cdot \frac{1}{6} = \boxed{\frac{1}{216}}$

b. P (no 6's): $\frac{5}{6} \cdot \frac{5}{6} \cdot \frac{5}{6} = \boxed{\frac{125}{216}}$

12. Amy taking 4 courses. $P(A) = .8$ $P(\text{not } A) = .2$

a. $(.2)(.2)(.2)(.2) = \boxed{.0016}$

b. $(.8)(.8)(.8)(.8) = \boxed{.4096}$

14. These are independent events!

P(6 on the 6th roll): $\boxed{\frac{1}{6}}$

6 ÷ 3	32 ÷ 4	18 ÷ 9	14 ÷ 2	64 ÷ 8
24 ÷ 6	45 ÷ 5	49 ÷ 7	48 ÷ 8	15 ÷ 5
56 ÷ 8	28 ÷ 7	35 ÷ 7	10 ÷ 5	54 ÷ 6
27 ÷ 9	9 ÷ 3	21 ÷ 3	12 ÷ 4	16 ÷ 2
20 ÷ 4	42 ÷7	8 ÷ 2	36 ÷ 4	18 ÷ 3
36 ÷ 6	72 ÷ 9	25 ÷ 5	12 ÷ 2	81 ÷ 9
63 ÷ 9	16 ÷ 4	24 ÷ 3	30 ÷ 6	40 ÷ 5

6 ÷ 3 = 2	32 ÷ 4 = 8	18 ÷ 9 = 2	14 ÷ 2 = 7	64 ÷ 8 = 8
24 ÷ 6 = 4	45 ÷ 5 = 9	49 ÷ 7 = 7	48 ÷ 8 = 6	15 ÷ 5 = 3
56 ÷ 8 = 7	28 ÷ 7 = 4	35 ÷ 7 = 5	10 ÷ 5 = 2	54 ÷ 6 = 9
27 ÷ 9 = 3	9 ÷ 3 = 3	21 ÷ 3 = 7	12 ÷ 4 = 3	16 ÷ 2 = 8
20 ÷ 4 = 5	42 ÷ 7 = 6	8 ÷ 2 = 4	36 ÷ 4 = 9	18 ÷ 3 = 6
36 ÷ 6 = 6	72 ÷ 9 = 8	25 ÷ 5 = 5	12 ÷ 2 = 6	81 ÷ 9 = 9
63 ÷ 9 = 7	16 ÷ 4 = 4	24 ÷ 3 = 8	30 ÷ 6 = 5	40 ÷ 5 = 8

Week 8, Wednesday, May 20th, Pre-Algebra

11.8, Class Exercises, pg. 426, #1-8, all

5 yellow, 4 green, 9 total

1. $P(A) = P(\text{yellow}) = \frac{5}{9}$

$P(B|A) = P(\text{green after yellow}) = \frac{4}{8} = \boxed{\frac{1}{2}}$ (greens left / total left)

2. $P(A) = P(\text{yellow}) = \frac{5}{9}$

$P(B|A) = P(\text{yellow after yellow}) = \frac{4}{8} = \boxed{\frac{1}{2}}$ (yellows left / total left)

3. $P(A) = P(\text{green}) = \frac{4}{9}$

$P(B|A) = P(\text{green after green}) = \boxed{\frac{3}{8}}$ greens left / total left

4. $P(A) = P(\text{green}) = \frac{4}{9}$

$P(B|A) = P(\text{yellow after green}) = \boxed{\frac{5}{8}}$ yellows left / total

5. $P(\text{1st yellow / 2nd green}) = P(\text{green} \mid \text{yellow}) = \frac{5}{9} \cdot \frac{4}{8} = \frac{5}{9} \cdot \frac{1}{2} = \boxed{\frac{5}{18}}$

6. $P(\text{1st green / 2nd yellow}) = P(\text{yellow} \mid \text{green}) = \frac{4}{9} \cdot \frac{5}{8} = \frac{1}{9} \cdot \frac{5}{2} = \boxed{\frac{5}{18}}$

7. $P(\text{green} \mid \text{green}) = \frac{4}{9} \cdot \frac{3}{8} = \boxed{\frac{1}{6}}$

8. $P(\text{diff. colors}) = P(\text{1st yellow / 2nd green}) + P(\text{1st green / 2nd yellow}) = \frac{5}{18} + \frac{5}{18} = \frac{10}{18} = \boxed{\frac{5}{9}}$

Name_____
Section_____

$\sqrt[2]{36} =$ $\sqrt[3]{27} =$ $\sqrt[4]{81} =$ $\sqrt[5]{3125} =$

$\sqrt[2]{361} =$ $\sqrt[3]{1000} =$ $\sqrt[4]{625} =$ $\sqrt[5]{243} =$

$\sqrt[2]{64} =$ $\sqrt[3]{216} =$ $\sqrt[4]{256} =$ $\sqrt[5]{1024} =$

$\sqrt[2]{25} =$ $\sqrt[3]{8} =$ $\sqrt[4]{16} =$ $\sqrt[5]{32} =$

$\sqrt[2]{100} =$ $\sqrt[3]{729} =$

$\sqrt[2]{4} =$ $\sqrt[3]{64} =$

$\sqrt[2]{121} =$ $\sqrt[3]{512} =$

$\sqrt[2]{16} =$ $\sqrt[3]{343} =$

$\sqrt[2]{169} =$ $\sqrt[3]{125} =$

$\sqrt[2]{49} =$

$\sqrt[2]{289} =$

$\sqrt[2]{400} =$

$\sqrt[2]{9} =$

$\sqrt[2]{196} =$

$\sqrt[2]{324} =$

$\sqrt[2]{256} =$

$\sqrt[2]{225} =$

$\sqrt[2]{144} =$

Name_____
Section_____

$\sqrt[2]{36} = 6$

$\sqrt[2]{361} = 19$

$\sqrt[2]{64} = 8$

$\sqrt[2]{25} = 5$

$\sqrt[2]{100} = 10$

$\sqrt[2]{4} = 2$

$\sqrt[2]{121} = 11$

$\sqrt[2]{16} = 4$

$\sqrt[2]{169} = 13$

$\sqrt[2]{49} = 7$

$\sqrt[2]{289} = 17$

$\sqrt[2]{400} = 20$

$\sqrt[2]{9} = 3$

$\sqrt[2]{196} = 14$

$\sqrt[2]{324} = 18$

$\sqrt[2]{256} = 16$

$\sqrt[2]{225} = 15$

$\sqrt[2]{144} = 12$

$\sqrt[3]{27} = 3$

$\sqrt[3]{1000} = 10$

$\sqrt[3]{216} = 6$

$\sqrt[3]{8} = 2$

$\sqrt[3]{729} = 9$

$\sqrt[3]{64} = 4$

$\sqrt[3]{512} = 8$

$\sqrt[3]{343} = 7$

$\sqrt[3]{125} = 5$

$\sqrt[4]{81} = 3$

$\sqrt[4]{625} = 5$

$\sqrt[4]{256} = 4$

$\sqrt[4]{16} = 2$

$\sqrt[5]{3125} = 5$

$\sqrt[5]{243} = 3$

$\sqrt[5]{1024} = 4$

$\sqrt[5]{32} = 2$

Week 8, Thursday, May 21st, Pre-Algebra

HW 11.8, pp. 426-427, Written Exercises, #2-8, even, #14-18, even

[4 red marbles, 6 blue, 10 total
NO replacement]

2. a. First event: A blue marble is drawn
Second event: A blue marble is drawn.

b. $P(\text{blue} \mid \text{blue}) = \frac{5}{9}$ ← blue left / total left

4. a. First event: a red marble is drawn
Second event: a blue marble is drawn

b. $P(\text{blue} \mid \text{red}) = \frac{6}{9}$ ← blue left / total left $= \boxed{\frac{2}{3}}$

[3 orange marbles, 7 green marbles, 10 total
NO replacement]

6. $P(\text{both green}) = \frac{7}{10} \cdot \frac{6}{9} = \frac{7}{5\cancel{10}} \cdot \frac{2^{1}}{3} = \boxed{\frac{7}{15}}$

8. $P(\text{green 1st, orange 2nd}) = \frac{7}{10} \cdot \frac{3}{9} = \frac{7}{10} \cdot \frac{1}{3} = \boxed{\frac{7}{30}}$

14. $P(\text{even 1st, even 2nd}) = \frac{2}{5} \cdot \frac{1}{4} = \frac{2}{20} = \boxed{\frac{1}{10}}$

[TRIANGLE 3 vowels 5 consonants 8 total]

16. $P(\text{vowel 1st, vowel 2nd}) = \frac{3}{8} \cdot \frac{2}{7} = \frac{3}{4\cancel{8}} \cdot \frac{2^{1}}{7} = \boxed{\frac{3}{28}}$

18. $P(\text{vowel, consonant}) = P(\text{V 1st C 2nd}) + P(\text{C 1st, V 2nd})$

$\frac{3}{8} \cdot \frac{5}{7} = \boxed{\frac{15}{56}} + \frac{5}{8} \cdot \frac{3}{7} = \boxed{\frac{15}{56}} = \frac{30}{56} = \boxed{\frac{15}{28}}$