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- 7th Grade Math -

Common Core Warm-Up Program

Revisit the Standards Throughout the School Year

By Mark P. Tully

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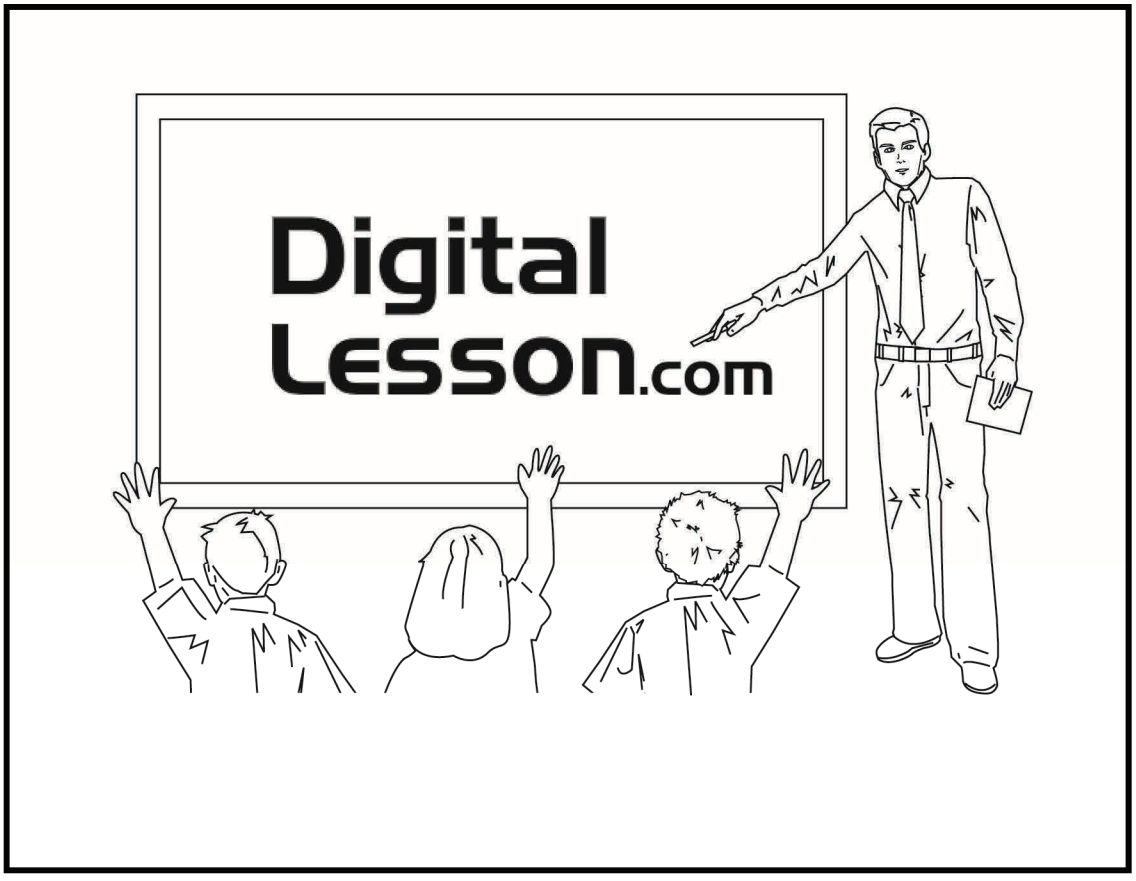
7th Grade Math

Common Core

Warm-Up Program



120 Warm-Ups to Begin Your Math Class

Revisit the Standards Throughout the School Year

Reinforce Learning through Repetition

Sharpen Student Skills to Facilitate Problem Solving

7th Grade Math Common Core Warm-Up Program

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Thank you,

Mark Tully

Founder, DigitalLesson.com

Mark Tully is a mathematics teacher at Oak Middle School in the Los Alamitos Unified School District, Los Alamitos, California. He has been teaching for more than 25 years and during that time has served as Mathematics Department Chairman and as a Mathematics Mentor Teacher. He enjoys developing activities that are designed to present the prescribed mathematics curriculum and standards in a way that is active and engaging.

Mark's website, www.DigitalLesson.com, is designed to meet the needs of middle school math teachers. DigitalLesson.com specializes in providing instant downloads of engaging, hands-on math activities. These middle school math activities are designed to enhance the middle school math program. Also included on the site are other math resources tailored for the middle school math teacher.

Mark also publishes the ***Middle School Math Treasures*** newsletter. The newsletter includes resources, ideas, and activities for middle school math teachers. A subscription ***to Middle School Math Treasures*** is free! Sign up on the home page of DigitalLesson.com. Unsubscribe at any time. We will never rent or sell your e-mail address. Enjoy this great, free resource!

We would love to hear about your experiences using this book, *7th Grade Math Common Core Warm-Up Program* in your classroom. Please e-mail us with any comments at mark@digitallesson.com.

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Why a Math Warm-Up Program?

I have used several math warm-up programs in my classroom over the past few years and I believe that **they have played a significant role in the achievement of my math students**. I'll get into more detail below, but here is a list of the key benefits that I have experienced when using a warm-up program:

* warm-ups set the tone for a productive math class period
* warm-ups give me the opportunity to quickly pre-teach or review important math concepts
* warm-ups create multiple opportunities for students to learn each concept throughout the year
* warm-ups can increase student performance on mathematical tasks and tests that have math skills as their foundation

Repetition and experience are keys to learning. Think of the strong mathematical foundation that your students will build as they continuously review key 7th grade concepts in this Common Core Warm-Up Program.

Setting the Tone for a Productive Math Class Period

When my students enter my classroom they find 5 warm-up problems projected on the screen at the front of the classroom. I have trained my students to quiet down when the bell rings, copy down their homework assignment, and then begin their warm-up problems. This calming, systematic start to each day becomes familiar to students and maximizes effective instructional time in the classroom.

Repeated Opportunities for Students to Learn

A few years ago I was involved in a discussion with my principal about how we could improve student performance in math. I told her that to me this was NOT a mystery. **If students were given the opportunity to practice the key skills in their grade level a number of times during the school year, their retention and ability to use these concepts would dramatically increase.** My principal then informed me that we had purchased a set of warm-ups that would help us accomplish our goal.

Too often (before I used warm-ups) students were taught a linear progression of grade level skills during the year and then we held a multi-day "cram session" where we reviewed the most important skills again before our end of the year assessments. This method proved to be **not nearly as effective as regular warm-up problems**. Regular warm-up problems often expose students to the key grade level concepts 5-10 times (or more) during the course of the school year. The results of this consistent program of review were noteworthy.

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Teacher Introduction (p. 2)

The Results of Using Daily Warm-Ups in the Math Classroom

The year that we purchased the warm-up program we were only able to complete 50-60 of the daily warm-ups because we started a few months into the school year. Still, our 7th grade math state test results showed the biggest increase out of any subject and grade level in our school. While my conclusion is based solely on observation (and I know that there are other factors involved) my colleagues and I are certain that **repeated exposures to the key content standards** in 7th grade **made a significant difference** in our results.

The following year our 6th grade team (I teach both grade levels) created our own set of warm-ups because a commercial product like the one we used in 7th grade was not available to us. We experienced similar results of significant improvement by our 6th grade students on the state mathematics test that year.

To me it is simply common sense that students will better understand ratios, geometry, equations, probability, and many other topics when they are given **multiple opportunities to learn each concept throughout the school year.**

The Common Core State Standards for 7th Grade Math

With the vast majority of states having adopted the Common Core State Standards for Mathematics, how will skill-based warm-ups fit in with these new standards? I believe that students will always need a strong skill set in order to approach the problem solving tasks and activities that are part of the Common Core.

Based on my experiences as a teacher for over 25 years, **I have developed this 7th Grade Math Common Core Warm-Up Program to both implement and help support the Common Core State Standards**.

Each of the 120 warm-up pages in this book has 5 problems aligned with the Common Core State Standards for 7th grade math. It is **my goal that this warm-up program will help propel your 7th grade math students to success in math** this year and for years to come.

Implementing this Warm-Up Program in Your Classroom

In the **pages that follow** I will give you a step-by-step description of how I implement a warm-up program in my classroom. As always, these are ideas and suggestions based on my experience. **As a math teacher you should absolutely modify any procedures so that they work most effectively for you and your classroom.**

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Implementing the Program in Your Classroom (p. 1)

1) Students Complete the Five Daily Warm-Up Problems (5-8 minutes)

When students enter the classroom they see a warm-up projected on the front screen. They complete the problems to the best of their ability, **showing their work on the warm-up recording sheet provided with this program**. After 5-8 minutes we review the answers, even if not every student has finished. Students **number the problems** and **show either work or the original problem** on their recording sheet.

2) Checking the Warm-Up Problems (2-4 minutes)

Student Participation

When I review the answers to the warm-ups I keep track of who answers each question by putting a tally mark on my seating chart. That way I ensure that everyone participates in this activity over the course of time. I call on a student and ask that student to share their answer and then, if appropriate, explain how they solved the problem. Some problems are straight computation and do not require an explanation.

Distributing Tickets

As an incentive for answering questions I select a student and give them 6 tickets to distribute. Five are for the students that correctly answer and explain the warm-up problems and 1 is to be kept by the student who distributes the tickets. Students receiving a ticket (from a basic roll of tickets that I purchase from Staples) put their name on the back and place the ticket in a class-specific can at the back of the classroom. Every 3-4 weeks I hold ticket drawings where I select 10-20 tickets and give away treats, school passes, homework passes, and any other prizes that I can get my hands on. I mention this at Back-to-School Night and parents will often donate items for our ticket drawings.

Teaching Mini Lessons

As we review the math problems I often teach small mini-lessons. We discuss any problems that are previews of lessons that have not yet been taught as well as those problems that review or apply previously covered concepts. I realize that these short explanations will not be grasped by every student. However, a number of students will better understand after the explanation and will be more prepared for similar problems in the future. Remember, this warm-up program is not taught for immediate mastery of every concept. Rather, multiple exposures to the mathematics will help lead students to mastery.

Answer Key Notes

* Answers for graphing inequality problems such as $x < 3$ are given as “open dot, to left.”
* Repeating decimals such as “0.3 repeating” are shown in the answer key as 0.3333……
* Fractional answers are written using a slash so ½ would be written 1/2.
* Some answers require equations to be written. One equation is given although other forms are possible.

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Implementing the Program in Your Classroom (p. 2)

3) Warm-Up Corrections

Students do the warm-up problems in pencil and correct them in colored pencil or ink on their Student Warm-Up Recording Sheet. They show work for each problem and place the answers in the answer column.

As we correct and discuss the problems students are instructed to show corrections (in color) next to each problem that they have missed. In my class, a correction is not just copying the correct answer in color next to their incorrect answer in the answer column. I require that students actually show the work (calculations, drawings, explanations, etc.) for any missed problems next to their original work.

4) Grading Warm-Ups

At the end of each five-day warm-up period I collect the students' recording sheets. In giving the students credit for their work and assigning a grade I am less concerned with their actual score and more concerned with student learning. With this in mind I consider three things before assigning a grade.

First, I check to make sure that students have shown some kind of work on every problem. On simple problems this may just be writing the problem down. On other problems this may mean showing the calculations involved in determining an answer.

Secondly, I monitor student corrections. As mentioned above, I require students to correct (in color) each and every problem that they miss. This is their opportunity for learning. As such, students who do not complete their corrections do not receive full credit. Corrections should include the work associated with arriving at the correct answer, not simply copying down the right answer when it is read aloud in class.

Thirdly, I look at the neatness and completeness of the paper. There are places on the recording sheet for the day, date, warm-up number, score, work, answers, and heading. If the paper is not filled out completely then the student will not receive full credit.

I count warm-ups as part of the homework grade in my classroom. Once again, I want to re-emphasize the point that I am more concerned with student learning during the warm-up process than I am with how many problems they get correct each day. If students miss problems but learn from their mistakes (and show their corrections) they can still receive full credit on the assignment.

Sometimes I use exceptional Student Warm-Up Recording Sheets as examples to help students understand the kind of work that I expect.

Finally, do not be overwhelmed by the prospect of grading several class sets of warm-ups. I quickly scan a paper for work, corrections, and completeness. I also notice how many problems they answered correctly out of the total. I can usually grade a class set of 35 papers in about 10 minutes.

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Implementing the Program in Your Classroom (p. 3)

Additional Tips for Implementation

Navigation - There are **two main ways to navigate to the warm-up page that you will be using on a given day**. One option is to use the **bookmarks function** on this pdf file. Just click on the link for a given warm-up to be directed to that page. The second option is to simply **add 23 to the scheduled warm-up number** to find the correct page in this eBook. For example, to access Warm-up # 50 go to page 73.

Absences - Absent students are instructed to write "absent" on their recording sheet for any days that they miss school. No makeups are given on warm-ups.

Show Work - Work is required to be shown on all problems. For those problems that can be solved mentally, students should, at a minimum, write down the problem given.

Projection Tips - The warm-ups can be projected onto a screen directly from the pdf using a projector or by using physical copies of the warm-ups and a document camera. To keep the projection large enough it may be necessary to scroll down the page or slide the physical copy beneath the document camera. In such cases instruct students to complete the top two problems (problems #1 and #4) because they will not be visible if the warm-up needs to be repositioned.

No Calculators - This warm-up program is designed to be done without calculators. Required calculations are within the reasonable ability range for the students.

Encourage Drawings - Certain types of problems (coordinate plane problems, etc.) can best be solved by quickly sketching or drawing a picture to help find the answer. Encourage drawing as a strategy.

Time Period - The warm-ups and their work are completed on a recording sheet that has room for 5 warm-ups. Although I am very consistent in using warm-ups, I do not give warm-ups every single day. Sometimes there is a test or other assignment that requires the entire class period and so no warm-up is given on that day. Do not feel that warm-ups need to start on a Monday and end on a Friday. I start a new warm-up sheet when needed whether that is on a Monday or any other day of the week.

New Problem Types - As mentioned previously, I do not expect students to answer every problem correctly, especially when new concepts are introduced. I briefly explain the new concept and move on. Some students will understand the first time and others will understand with further repetition.

120 Warm-ups - I have never finished 120 warm-ups in one school year even though our school year has about 180 days. The reasons for this include days without warm-ups (tests, projects, assemblies, etc.) as well as days at the beginning and end of the school year where I do not use warm-ups because we are either in intro mode or windup mode. In addition, I like to mix in other starter activities every now and then. If you do end up needing more than 120 warm-ups my suggestion would be to cycle back around and choose some of the warm-ups to rework. Your students will not have these problems memorized and so they will continue to provide an effective review of 6th grade math concepts.

Math 7 **LAST, FIRST**

Warm-Ups (**Sample Page**) **MATH, PERIOD 2**

Common Core Review **10/12/18**

MONDAY **10/12** Warm-Up # **26** **4** / 5

1) Show work or problem 2) Show work or problem 3) Show work or problem 4) Show work or problem 5) Show work or problem

1) **53**
2) **$12.45**
3) **32 IN.²**
4) **X ≥ 5**
5) **3,284**

_____ _____ Warm-Up # _____ _____/ 5

(REMEMBER TO CORRECT ALL MISSED PROBLEMS IN COLOR.)

1) _____
2) _____
3) _____
4) _____
5) _____

_____ _____ Warm-Up # _____ _____/ 5

(NUMBER YOUR WORK)

1) _____
2) _____
3) _____
4) _____
5) _____

_____ _____ Warm-Up # _____ _____/ 5

1) _____
2) _____
3) _____
4) _____
5) _____

_____ _____ Warm-Up # _____ _____/ 5

1) _____
2) _____
3) _____
4) _____
5) _____

Warm-Up Page Score **22** / **25**

Math 7 _____

Warm-Ups _____

Common Core Review _____

_____ _____ Warm-Up # _____ _____/ 5 1) _____
2) _____
3) _____
4) _____
5) _____

_____ _____ Warm-Up # _____ _____/ 5 1) _____
2) _____
3) _____
4) _____
5) _____

_____ _____ Warm-Up # _____ _____/ 5 1) _____
2) _____
3) _____
4) _____
5) _____

_____ _____ Warm-Up # _____ _____/ 5 1) _____
2) _____
3) _____
4) _____
5) _____

_____ _____ Warm-Up # _____ _____/ 5 1) _____
2) _____
3) _____
4) _____
5) _____

Warm-Up Page Score _____ / _____

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Common Core State Standards Correlation by Warm-Up (1-56)

1) 7.NS.2a, 7.NS.1a, 7.RP.2b, 7.EE.3, 7.G.1
2) 7.NS.1d, 7.NS.1c, 7.RP.3, 7.G.2, 7.SP.5
3) 7.NS.3, 7.NS.2d, 7.EE.4a, 7.G.4, 7.RP.3
4) 7.NS.3, 7.EE.4a, 7.SP.5, 7.G.4, 7.RP.3
5) 7.NS.2a, 7.NS.1b, 7.SP.2, 7.G.6, 7.EE.4a
6) 7.NS.2b, 7.EE.1, 7.RP.3, 7.SP.5, 7.RP.2a
7) 7.NS.2b, 7.NS.1c, 7.G.1, 7.G.6, 7.EE.4b
8) 7.NS.2a, 7.NS.2d, 7.RP.3, 7.NS.1b, 7.NS.1
9) 7.NS.1a, 7.EE.4a, 7.RP.3, 7.EE.3, 7.SP.5
10) 7.NS.2a, 7.EE.1, 7.NS.1d, 7.G.4, 7.SP.1
11) 7.EE.3, 7.NS.2d, 7.RP.3, 7.G.4, 7.G.1
12) 7.NS.2b, 7.EE.3, 7.SP.5, 7.RP.2b, 7.G.5
13) 7.NS.3, 7.EE.4a, 7.NS.2c, 7.EE.2, 7.SP.5
14) 7.EE.3, 7.NS.1b, 7.RP.2b, 7.G.1, 7.RP.3
15) 7.NS.2a, 7.NS.2d, 7.SP.5, 7.G.2, 7.RP.1
16) 7.NS.3, 7.EE.1, 7.NS.2b, 7.G.6, 7.G.1
17) 7.NS.3, 7.RP.3, 7.NS.2c, 7.G.4, 7.SP.5
18) 7.NS.3, 7.NS.1c, 7.NS.1d, 7.RP.3, 7.G.6
19) 7.NS.3, 7.G.4, 7.NS.1c, 7.EE.3, 7.RP.2a
20) 7.NS.2a, 7.RP.1, 7.SP.5, 7.G.2, 7.EE.4b
21) 7.NS.2a, 7.NS.1a, 7.RP.3, 7.EE.2, 7.G.5
22) 7.EE.3, 7.NS.2d, 7.RP.3, 7.G.1, 7.SP.5
23) 7.NS.3, 7.EE.4a, 7.NS.1c, 7.G.1, 7.RP.2b
24) 7.NS.3, 7.EE.1, 7.NS.1d, 7.SP.5, 7.G.1
25) 7.NS.3, 7.EE.4a, 7.SP.2, 7.G.1, 7.EE.3
26) 7.NS.2a, 7.NS.2d, 7.RP.3, 7.G.3, 7.SP.1
27) 7.EE.3, 7.NS.1b, 7.NS.2c, 7.EE.1, 7.RP.1
28) 7.NS.2a, 7.NS.1c, 7.G.4, 7.EE.3, 7.SP.1
29) 7.NS.2b, 7.RP.3, 7.G.4, 7.EE.2, 7.EE.3
30) 7.NS.3, 7.EE.4b, 7.RP.1, 7.G.1, 7.SP.6
31) 7.EE.3, 7.SP.5, 7.NS.1d, 7.G.6, 7.EE.4a
32) 7.NS.2a, 7.EE.4a, 7.RP.3, 7.EE.1, 7.G.1
33) 7.EE.3, 7.RP.3, 7.NS.1c, 7.G.3, 7.SP.7a
34) 7.NS.3, 7.EE.2, 7.NS.2b, 7.SP.8a, 7.G.5
35) 7.NS.3, 7.EE.1, 7.RP.3, 7.SP.5, 7.G.1
36) 7.NS.1a, 7.EE.4a, 7.NS.2c, 7.G.6, 7.EE.3
37) 7.EE.3, 7.NS.1d, 7.SP.8a, 7.G.4, 7.RP.2a
38) 7.NS.3, 7.NS.1c, 7.G.2, 7.EE.1, 7.RP.3
39) 7.NS.2a, 7.G.4, 7.SP.2, 7.EE.3, 7.RP.2b
40) 7.NS.3, 7.EE.4a, 7.SP.5, 7.RP.3, 7.G.5
41) 7.NS.2b, 7.RP.3, 7.SP.6, 7.G.1, 7.NS.1
42) 7.EE.3, 7.NS.2d, 7.G.6, 7.NS.3, 7.SP.8
43) 7.NS.3, 7.EE.4a, 7.RP.1, 7.EE.3, 7.G.6
44) 7.NS.3, 7.EE.4b, 7.RP.3, 7.G.4, 7.SP.4
45) 7.NS.3, 7.NS.1b, 7.RP.2b, 7.SP.5, 7.G.5
46) 7.NS.2d, 7.EE.1, 7.NS.1d, 7.G.6, 7.SP.2
47) 7.NS.2a, 7.G.4, 7.RP.3, 7.EE.2, 7.SP.1
48) 7.NS.3, 7.EE.4a, 7.SP.5, 7.RP.2b, 7.G.6
49) 7.NS.3, 7.NS.2c, 7.SP.8, 7.RP.3, 7.G.5
50) 7.NS.3, 7.EE.4b, 7.NS.1c, 7.G.4, 7.RP.1
51) 7.NS.3, 7.EE.1, 7.SP.8a, 7.G.6, 7.RP.2b
52) 7.EE.3, 7.NS.1d, 7.RP.3, 7.SP.5, 7.G.6
53) 7.NS.3, 7.NS.1c, 7.RP.3, 7.G.2, 7.EE.4a
54) 7.NS.3, 7.EE.4b, 7.NS.2c, 7.SP.1, 7.G.1
55) 7.NS.2d, 7.EE.4a, 7.RP.2b, 7.G.4, 7.EE.3
56) 7.NS.3, 7.EE.4b, 7.RP.3, 7.SP.5, 7.G.5

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Common Core State Standards Correlation by Warm-Up (57-112)

57) 7.NS.2b, 7.SP.5, 7.RP.3, 7.G.1, 7.EE.4b
58) 7.NS.3, 7.RP.3, 7.G.2, 7.SP.5, 7.EE.4a
59) 7.NS.3, 7.EE.4a, 7.RP.2a, 7.G.6, 7.SP.7a
60) 7.NS.1a, 7.NS.2d, 7.RP.3, 7.G.1, 7.SP.1
61) 7.NS.3, 7.RP.1, 7.EE.3, 7.G.3, 7.SP.4
62) 7.NS.3, 7.NS.1b, 7.RP.2b, 7.SP.8a, 7.G.5
63) 7.EE.3, 7.RP.3, 7.RP.2c, 7.G.2, 7.NS.3
64) 7.NS.3, 7.EE.1, 7.G.6, 7.SP.5, 7.RP.2b
65) 7.NS.2b, 7.EE.4b, 7.RP.2b, 7.G.6, 7.SP.2
66) 7.EE.1, 7.NS.1d, 7.RP.1, 7.SP.5, 7.G.6
67) 7.NS.2b, 7.G.6, 7.RP.3, 7.SP.5, 7.EE.2
68) 7.NS.3, 7.SP.5, 7.RP.2c, 7.EE.2, 7.NS.1
69) 7.NS.3, 7.EE.3, 7.NS.2b, 7.SP.8, 7.G.1
70) 7.NS.3, 7.G.4, 7.RP.3, 7.EE.2, 7.SP.7a
71) 7.NS.1a, 7.G.6, 7.RP.2b, 7.EE.3, 7.SP.6
72) 7.NS.2d, 7.EE.4b, 7.SP.8a, 7.G.4, 7.RP.2d
73) 7.NS.3, 7.RP.3, 7.EE.2, 7.G.1, 7.SP.2
74) 7.NS.1a, 7.NS.2c, 7.SP.5, 7.G.2, 7.EE.3
75) 7.EE.3, 7.NS.1c, 7.RP.2a, 7.G.3, 7.SP.7b
76) 7.NS.2b, 7.EE.4b, 7.RP.2a, 7.SP.5, 7.G.5
77) 7.NS.3, 7.EE.2, 7.SP.5, 7.RP.2b, 7.G.1
78) 7.NS.1b, 7.G.6, 7.EE.3, 7.SP.5, 7.RP.2d
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81) 7.NS.3, 7.EE.4b, 7.RP.3, 7.G.4, 7.G.5
82) 7.NS.3, 7.EE.4a, 7.RP.3, 7.G.6, 7.EE.4b
83) 7.EE.3, 7.NS.2c, 7.G.6, 7.SP.8b, 7.RP.2c
84) 7.NS.3, 7.NS.1d, 7.RP.3, 7.SP.5, 7.SP.6
85) 7.NS.2b, 7.EE.2, 7.RP.3, 7.G.3, 7.EE.4b
86) 7.NS.2a, 7.EE.4a, 7.SP.8a, 7.NS.1c, 7.RP.2a
87) 7.NS.2d, 7.EE.3, 7.NS.1, 7.G.4, 7.SP.1
88) 7.NS.3, 7.EE.1, 7.RP.1, 7.SP.5, 7.G.6
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91) 7.NS.2b, 7.SP.5, 7.G.5, 7.EE.2, 7.RP.2d
92) 7.NS.3, 7.NS.1c, 7.SP.8a, 7.G.3, 7.RP.2b
93) 7.NS.3, 7.EE.4b, 7.RP.3, 7.G.6, 7.SP.7b
94) 7.NS.3, 7.NS.1d, 7.RP.3, 7.SP.5, 7.G.5
95) 7.NS.2a, 7.G.2, 7.RP.2c, 7.EE.3, 7.G.6
96) 7.NS.1a, 7.SP.8b, 7.NS.1, 7.EE.2, 7.G.6
97) 7.NS.3, 7.G.1, 7.EE.3, 7.RP.3, 7.SP.2
98) 7.EE.4a, 7.G.6, 7.NS.3, 7.SP.5, 7.RP.2a
99) 7.EE.1, 7.NS.2c, 7.RP.2a, 7.G.6, 7.SP.4
100) 7.NS.2b, 7.EE.3, 7.RP.3, 7.G.1, 7.EE.4b
101) 7.NS.2d, 7.EE.4b, 7.RP.3, 7.SP.5, 7.G.1
102) 7.NS.3, 7.EE.2, 7.RP.3, 7.G.4, 7.SP.1
103) 7.EE.3, 7.RP.3, 7.NS.2b, 7.G.3, 7.SP.7a
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108) 7.NS.3, 7.EE.1, 7.NS.1c, 7.G.3, 7.RP.2d
109) 7.NS.1d, 7.EE.3, 7.RP.2b, 7.SP.8b, 7.G.1
110) 7.NS.2b, 7.EE.4b, 7.SP.6, 7.G.6, 7.RP.2a
111) 7.NS.1c, 7.EE.4a, 7.RP.1, 7.G.1, 7.SP.8a
112) 7.EE.3, 7.NS.2d, 7.RP.3, 7.G.6, 7.SP.7a

7th Grade Math Common Core Warm-Up Program

Common Core State Standards Correlation by Warm-Up (113-120)

113) 7.NS.3, 7.SP.8a, 7.RP.2b, 7.G.4, 7.EE.4a

114) 7.NS.3, 7.RP.3, 7.EE.4a, 7.SP.5, 7.G.5

115) 7.NS.2d, 7.EE.4a, 7.SP.5, 7.G.6, 7.RP.2d

116) 7.NS.3, 7.EE.4b, 7.RP.3, 7.G.2, 7.SP.7b

117) 7.EE.1, 7.NS.2c, 7.SP.1, 7.G.6, 7.RP.2d

118) 7.NS.3, 7.SP.5, 7.RP.3, 7.G.4, 7.EE.4b

119) 7.NS.1a, 7.EE.1, 7.RP.3, 7.SP.8a, 7.G.5

120) 7.NS.2a, 7.EE.4b, 7.RP.3, 7.SP.8b, 7.G.6

7th Grade Math Common Core Warm-Up Program

List of Warm-ups Where Each Standard is Covered (1 of 3)

Ratios and Proportional Relationships (7.RP)

7.RP.1: 15, 20, 27, 30, 43, 50, 61, 66, 79, 88, 104, 111

7.RP.2

7.RP.2a: 6, 19, 37, 59, 75, 76, 86, 98, 99, 110

7.RP.2b: 1, 12, 14, 23, 39, 45, 48, 51, 55, 62, 64, 65, 71, 77, 80, 92, 109, 113

7.RP.2c: 63, 68, 83, 95, 105

7.RP.2d: 72, 78, 89, 91, 107, 108, 115, 117

7.RP.3: 2, 3, 4, 6, 8, 9, 11, 14, 17, 18, 21, 22, 26, 29, 32, 33, 35, 38, 40, 41, 44, 47, 49, 52, 53, 56, 57, 58, 60, 63, 67, 70, 73, 81, 82, 84, 85, 90, 93, 94, 97, 100, 101, 102, 103, 106, 112, 114, 116, 118, 119, 120

The Number System (7.NS)

7.NS.1: 8, 87, 96

7.NS.1a: 1, 9, 21, 36, 41, 60, 68, 71, 74, 96, 104, 119

7.NS.1b: 5, 8, 14, 27, 45, 62, 78

7.NS.1c: 2, 7, 18, 19, 23, 28, 33, 38, 50, 53, 75, 86, 92, 108, 111

7.NS.1d: 2, 10, 18, 24, 31, 37, 46, 52, 66, 84, 94, 109

7.NS.2

7.NS.2a: 1, 5, 8, 10, 15, 20, 21, 26, 28, 32, 39, 47, 86, 95, 107, 120

7.NS.2b: 6, 7, 12, 16, 29, 34, 41, 57, 65, 67, 69, 76, 85, 89, 91, 100, 103, 110

7.NS.2c: 13, 17, 27, 36, 49, 54, 74, 83, 99, 117

7.NS.2d: 3, 8, 11, 15, 22, 26, 42, 46, 55, 60, 72, 80, 87, 90, 101, 112, 115

7.NS.3: 3, 4, 13, 16, 17, 18, 19, 23, 24, 25, 30, 34, 35, 38, 40, 42, 43, 44, 45, 48, 49, 50, 51, 53, 54, 56, 58, 59, 61, 62, 63, 64, 68, 69, 70, 73, 77, 79, 80, 81, 82, 84, 88, 89, 92, 93, 94, 97, 98, 102, 105, 106, 108, 113, 114, 116, 118

7th Grade Math Common Core Warm-Up Program

List of Warm-ups Where Each Standard is Covered (2 of 3)

Expressions and Equations (7.EE)

7.EE.1: 6, 10, 16, 24, 27, 32, 35, 38, 46, 51, 64, 66, 88, 89, 99, 105, 107, 108, 117, 119

7.EE.2: 13, 21, 29, 34, 47, 67, 68, 70, 73, 77, 85, 91, 96, 102, 104

7.EE.3: 1, 9, 11, 12, 14, 19, 22, 25, 27, 28, 29, 31, 33, 36, 37, 39, 42, 43, 52, 55, 61, 63, 69, 71, 74, 75, 78, 83, 87, 95, 97, 100, 103, 109, 112

7.EE.4

7.EE.4a: 3, 4, 5, 9, 13, 23, 25, 31, 32, 36, 40, 43, 48, 53, 55, 58, 59, 79, 82, 86, 90, 98, 111, 113, 114, 115

7.EE.4b: 7, 20, 30, 44, 50, 54, 56, 57, 65, 72, 76, 81, 82, 85, 93, 100, 101, 106, 110, 116, 118, 120

Geometry (7.G)

7.G.1: 1, 7, 11, 14, 16, 22, 23, 24, 25, 30, 32, 35, 41, 54, 57, 60, 69, 73, 77, 80, 89, 97, 100, 101, 109, 111

7.G.2: 2, 15, 20, 38, 53, 58, 63, 74, 95, 104, 116

7.G.3: 26, 33, 61, 75, 85, 92, 103, 108

7.G.4: 3, 4, 10, 11, 17, 19, 28, 29, 37, 39, 44, 47, 50, 55, 70, 72, 81, 87, 90, 102, 107, 113, 118

7.G.5: 12, 21, 34, 40, 45, 49, 56, 62, 76, 81, 91, 94, 114, 119

7.G.6: 5, 7, 16, 18, 31, 36, 42, 43, 46, 48, 51, 52, 59, 64, 65, 66, 67, 71, 78, 79, 82, 83, 88, 93, 95, 96, 98, 99, 105, 106, 110, 112, 115, 117, 120

7th Grade Math Common Core Warm-Up Program

List of Warm-ups Where Each Standard is Covered (3 of 3)

Statistics and Probability (7.SP)

7.SP.1: 10, 26, 28, 47, 54, 60, 79, 87, 102, 117

7.SP.2: 5, 25, 39, 46, 65, 73, 97

7.SP.3:

7.SP.4: 44, 61, 99

7.SP.5: 2, 4, 6, 9, 12, 13, 15, 17, 20, 22, 24, 31, 35, 40, 45, 48, 52, 56, 57, 58, 64, 66, 67, 68, 74, 76, 77, 78, 80, 84, 88, 91, 94, 98, 101, 104, 105, 107, 114, 115, 118

7.SP.6: 30, 41, 71, 84, 110

7.SP.7

7.SP.7a: 33, 59, 70, 90, 103, 112

7.SP.7b: 75, 93, 106, 116

7.SP.8

7.SP.8a: 34, 37, 51, 62, 72, 86, 92, 111, 113, 119

7.SP.8b: 42, 49, 69, 83, 96, 109, 120

7.SP.8c:

7th Grade Math Common Core Warm-Up Program

Common Core State Standards Warm-Up Answers (1-28)

1)	1) 6x + 21	2) 0	3) 210 miles/gallon	4) $38.50/hour	5) 122.5 miles
2)	1) 400	2) 64	3) $600	4) isosceles	5) 0
3)	1) -10	2) 0.3125	3) x = 4	4) A = 144π cm^2	5) $7.80
4)	1) 23.844	2) y = -41	3) 1/4	4) A = 50.24 in^2	5) $32,400
5)	1) 105	2) 0	3) 360 people	4) 150 ft^2	5) c = 5t + 12.35
6)	1) undefined	2) 15x + 6y - 14z	3) $480	4) 1	5) yes
7)	1) -4,474	2) 65	3) 6 1/2 inches	4) 30 m^2	5) $w \geq 6$
8)	1) 15x - 45	2) 0.363636…..	3) $90	4) 7/8 of the pizza	5) -25 + 40 = 15
9)	1) 14	2) x = 3	3) $6,000	4) 156 stickers	5) neither
10)	1) -960	2) 31x + 6y -11z	3) 177	4) A = 400π	5) yes
11)	1) 7 5/8	2) 0.375	3) $26.25	4) A = 153.86 ft^2	5) 600 miles
12)	1) 8	2) 1/6	3) 17%	4) 24 ft./sec.	5) x=180-53,127°
13)	1) 287.64	2) -102	3) 3,700	4) 8%	5) likely event
14)	1) 99	2) 0	3) 26 pages/hour	4) 3.5 ft. by 4 ft.	5) $120
15)	1) 56x-42y+63	2) 0.55555….	3) 1	4) impossible (190°)	5) 1/10 pizza/per.
16)	1) 2.34	2) -14x+91y-25z	3) -2/3	4) A = 4,275 cm^2	5) 62.8 ft.
17)	1) 2/5	2) $3.90	3) 8,600	4) C = 31.4 cm	5) unlikely event
18)	1) 7 7/20	2) 45	3) 600	4) $36,000	5) h = 40 ft.
19)	1) -1,120	2) C = 16.2π ft.	3) -23 + 74 = 51	4) 20 home runs	5) no
20)	1) 68	2) 2 miles/hour	3) 1/2	4) equilateral (acute)	5) $m \geq 10$
21)	1) 1,800	2) 0	3) $3,600	4) 20%	5) 180-37=x,53°
22)	1) 74	2) 0.8	3) $57.00	4) 75 meters	5) 0
23)	1) 14 13/20	2) -93	3) 86 + 55 = 141	4) 3.5 feet	5) 24 pizzas/hour
24)	1) 15	2) 6x - 18y - 25z	3) 1,000	4) 0	5) d = 3 in.
25)	1) 3 1/2	2) x = 3	3) 900 students	4) A = 288 ft^2	5) 35 3/4 pizzas
26)	1) -15x+12y-18	2) 0.83333….	3) $52.50	4) rectangle	5) no
27)	1) 101	2) 7	3) 168,000	4) 12(x + 3)	5) 1/4 pizza/pers.
28)	1) -7,200	2) 66	3) C = 43.96 m	4) 44 golf balls	5) $21,000

7th Grade Math Common Core Warm-Up Program

Common Core State Standards Warm-Up Answers (29-56)

29)	1) undefined	2) $11.60	3) $C = 21\pi$	4) 6%	5) 1/16 cookie
30)	1) 195.836	2) $x > 2$	3) 2 1/2 miles/hour	4) 5 in. by 3.5 in.	5) 31 times
31)	1) 26 1/2	2) 33%	3) 276	4) A = 60 yds^2	5) P = 20 feet
32)	1) -3,690	2) 7	3) $34.30	4) 14 (3x + 2)	5) A = 1,680 ft^2
33)	1) 258	2) 21,000	3) -254+(-62) = -316	4) rectangle	5) 9/19
34)	1) -36	2) 30%	3) -4/5	4) 1/3	5) 180-118=x, 162°
35)	1) -3	2) -19x + 12y - 47z	3) 15% increase	4) unlikely event	5) P = 1,500 ft^2
36)	1) 26	2) x = 4	3) 7,600	4) h = 30 inches	5) 616.1 miles
37)	1) 251	2) 850	3) 1/2	4) C = 62.8 ft.	5) yes
38)	1) 164.22	2) 121	3) right (isosceles)	4) 17 (x + 3)	5) $1,610
39)	1) -27x-63y+72	2) A = 78.5 ft^2	3) 125 students	4) $1,050	5) 3.5 TV hrs/day
40)	1) -73	2) x = 4	3) 2/11	4) $8,000	5) 90-87 = x, 3°
41)	1) undefined	2) $18.90	3) 141 times	4) 3.5 feet	5) 0
42)	1) 1	2) 0.875	3) A = 200 in^2	4) $7.50 each	5) 1/6
43)	1) 7	2) 25	3) 120 tacos/hour	4) 7/20 of the pie	5) V = 9,000ft^3
44)	1) 678.458	2) $x \geq 8$	3) 20% decrease	4) A = 225π cm^2	5) Jetta
45)	1) 1 17/24	2) 0	3) 385 miles	4) 0	5) 180-26=x, 54°
46)	1) 0.333….	2) 12 (2x + 3)	3) 479	4) A = 128 ft^2	5) 910 people
47)	1) 21x-27y+18	2) A = 1,256 ft^2	3) $187.50	4) 10% tip	5) no
48)	1) 360	2) x = 4	3) 83%	4) 26 push-ups/set	5) SA = 150 in^2
49)	1) 195.986	2) 320,000	3) 8 outcomes	4) $21.00	5) 180-55=x, 125°
50)	1) 5 5/6	2) $x < 6$	3) -328 + 46 = -282	4) 31.4 inches	5) 5/12 pie/pers.
51)	1) 32.1	2) 31x - 32y + 19z	3) 1/4	4) V = 450 in^3	5) 1.5 hours/day
52)	1) 116	2) 600	3) $1,050	4) unlikely event	5) SA = 176 cm^2
53)	1) 2 1/2	2) 123	3) 25% increase	4) scalene triangle	5) c = 4t + 23.75
54)	1) 44 23/24	2) $x \geq 11$	3) 77,000	4) $65.00	5) A = 312 ft^2
55)	1) 0.75	2) x = 6	3) $7.00/ticket	4) C = 86.5π ft.	5) 1.08
56)	1) 12	2) $x \leq 13$	3) 12.5% decrease	4) neither	5) 180-79=x, 101°

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Common Core State Standards Warm-Up Answers (57-84)

57)	1) undefined	2) 1/2	3) 8% error	4) 63 meters	5) $m \geq 7$
58)	1) 4.064	2) $38,500	3) obtuse triangle	4) 1	5) P = 27 1/2 ft.
59)	1) 56	2) x = 2	3) no	4) A = 18 ft^2	5) 2/5
60)	1) 91	2) 0.083333….	3) $2,650	4) 6 in. by 4.5 in.	5) 60 people
61)	1) -33	2) 2 1/2 mi/hr	3) no	4) rectangle	5) Todd
62)	1) 24.13	2) 8	3) $2.75/cone	4) 1/24	5) 90-42=x, 48°
63)	1) -32	2) $16.00	3) t = 1.75n	4) rhombus	5) 1 5/8 feet
64)	1) 2 1/4	2) 9(3x + 5)	3) 16 feet	4) likely event	5) 3.5 phone/fam
65)	1) -6/7	2) x < 7	3) 17.5 miles	4) V = 672 in^3	5) 833 students
66)	1) -4x-43y-7z	2) 539	3) 5/16 pie/person	4) 0	5) SA = 144 in^2
67)	1) -15.75	2) 35xy	3) 20% increase	4) neither	5) 1.07
68)	1) -79	2) 67%	3) t = 0.75n	4) 5%	5) 0%
69)	1) 3 1/15	2) $31.25	3) -2/3	4) 12 outcomes	5) 3,240 ft^2
70)	1) 2 1/2	2) C = 23.7π ft.	3) $54.00	4) 45% discount	5) 7/29
71)	1) 0	2) V = 864 in^3	3) $12.50/pizza	4) 194	5) 234 times
72)	1) 0.125	2) $x \geq 10$	3) 1/12	4) A = 314 ft^2	5) (3,165); 55m/h
73)	1) 1	2) $36,000	3) 18% tip	4) 292 1/2	5) 600 parents
74)	1) -62	2) 237,000	3) 1/8	4) impossible, 183°	5) 1 hr. 15 min.
75)	1) -11	2) 97	3) yes	4) triangle	5) 468 people
76)	1) 13.6666...	2) x > 2	3) yes	4) unlikely event	5) 180-112=x, 68°
77)	1) 722.975	2) 10% discount	3) 1	4) 230 sit-ups	5) d = 5 in.
78)	1) 0	2) A = 16.5 in^2	3) 720 paper clips	4) 50%	5) x = 24; y = 96
79)	1) -5,120	2) 4 1/2 mi/hr	3) P = 22 ft.	4) no	5) SA = 486 in^2
80)	1) 340.833	2) 0.7333….	3) 27 mi/gal	4) likely event	5) 5.5 by 4.75 ft.
81)	1) -56	2) x < 6	3) $18.00	4) A = 625π cm^2	5) 180-14=x, 166°
82)	1) -6	2) x = 5	3) 12.5% error	4) h = 12ft.	5) $m \geq 4$
83)	1) -3.6	2) 63,000	3) A = 32x^2	4) 312 outcomes	5) t = 25n
84)	1) 49 8/9	2) 776	3) 40% decrease	4) 1/2	5) 104 times

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Common Core State Standards Warm-Up Answers (85-112)

85)	1) -15/16	2) 15% discount	3) $2,240	4) rectangle	5) closed dot, to right
86)	1) 15x-18y+3	2) y = 168	3) 1/12	4) -437 + 93 = -344	5) yes
87)	1) 0.1875	2) 4 5/18	3) -32 - 15 = - 47	4) A = 78.5 in^2	5) yes
88)	1) 15 2/3	2) 29x - 41y - 11z	3) 9/14 ft/person	4) unlikely event	5) SA = 486 in^2
89)	1) -162	2) 16 (2x + 5)	3) -11/12	4) 5.25 feet	5) x = $3, y = $12
90)	1) 0.416666...	2) x = 2.1	3) $16,500	4) A = 28.26 in^2	5) 2/5
91)	1) 4,536	2) 0	3) 90-71 = x, 19°	4) 7%	5) (4,140); 35s/c
92)	1) 12.4	2) 62	3) 1/30	4) rectangle	5) 4.25 hrs/week
93)	1) 2,480	2) $x \leq 7$	3) $668.75	4) V = 1,980 in^3	5) 595 people
94)	1) 783.314	2) 700	3) 120% increase	4) 0	5) 180-112=x, 68°
95)	1) -36x+48y+72	2) isosceles	3) t = 2.25n	4) 31	5) SA = 176 cm^2
96)	1) 0	2) 104 outcomes	3) -54 + 22 = -32	4) 25% tip	5) SA = 432 ft^2
97)	1) 8	2) 156 miles	3) yes	4) $360	5) 528 students
98)	1) x = 8	2) A = 28 m^2	3) 1/24 of the wall	4) neither	5) no
99)	1) 1/3x + 3/10y	2) 12,600	3) yes	4) V = 1,440 ft^3	5) Elias
100)	1) -4/5	2) 28,000	3) $8,400	4) 5.25 inches	5) closed dot, to left
101)	1) 0.625	2) $x \leq 8$	3) $102.50	4) unlikely event	5) P = 64 feet
102)	1) 435.33	2) 5%	3) $22.00	4) A = 1,600π cm^2	5) no
103)	1) 284	2) $90,000	3) -3/4	4) rectangle	5) 1/11
104)	1) -37	2) 20% discount	3) 57 cones/hour	4) scalene triangle	5) 3/8
105)	1) 1 1/3	2) -2.6x + 5.4y	3) t = 3.25n	4) 67%	5) SA = 54cm^2
106)	1) 1 9/20	2) 9	3) 18% decrease	4) h = 12 feet	5) 200
107)	1) -6,468	2) 18x - 60y - 32z	3) likely event	4) A = 113.04 in^2	5) x=$1.50, y=$6
108)	1) -4	2) 8 (9x + 7)	3) -247 + (-320) = -567	4) triangle	5) (4,48); 12a/b
109)	1) 559	2) 217	3) 32 pages/hour	4) 48 outcomes	5) A = 1,125 ft^2
110)	1) undefined	2) x > 20	3) 71 times	4) V = 2,200 ft^3	5) no
111)	1) 81.25	2) y = 7	3) 3/10 pound/person	4) 8.5 feet	5) 1/5
112)	1) 67	2) 0.583333….	3) $800	4) V = 924 cm^3	5) 18/35

7th Grade Math Common Core Warm-Up Program

Common Core State Standards Warm-Up Answers (113-120)

113)	1) -27	2) 1/8	3) 205 pages	4) A = 254.34 in^2	5) c = 4t + 42.50
114)	1) 76.504	2) $4.89	3) P = 12.5 feet	4) neither	5) 180-52=x, 128°
115)	1) 0.875	2) x = 7	3) 1	4) h = 3 feet	5) (2,100); 50m/h
116)	1) -4,680	2) x < 9	3) $37.50	4) obtuse, isosceles	5) 120 people
117)	1) -52x-43y+23z	2) 38,700	3) yes	4) A = 42.75 in^2	5) x=$2.50, y=$10
118)	1) 2 2/3	2) 17%	3) 5% error	4) A = 12.56 in^2	5) closed dot, to right
119)	1) -99	2) 13 (3x + 4)	3) $13,800	4) 5/12	5) 90-34=x, 56°
120)	1) -42x+84y+105	2) x ≤ -15	3) $132.84	4) 12 outcomes	5) SA = 112 in^2

Warm-Up 1

1) $3(2x + 7) =$

7.NS.2a

2) What is the sum of -8 and its opposite?

7.NS.1a

3) Veronica traveled 126 miles on 3 gallons of gas. On another trip she traveled 210 miles on 5 gallons of gas. Find the unit rate in miles per gallon on her two trips.

7.RP.2b

4) If Ben makes $35.00 per hour and then he gets a 10% raise, what is his new salary?

7.EE.3

5) A map has a scale of 1 inch = 35 miles. What is the actual distance if the distance on the map is 3.5 inches?

7.G.1

Warm-Up 2

1) 57 + 233 + 43 + 67 =

7.NS.1d

2) Find the distance between -23 and 41 on a number line.

7.NS.1c

3) Find the simple interest on $5,000 at 4% interest for 3 years.

7.RP.3

4) Sketch and name a triangle with sides of 1.5 feet, 3 feet, and 18 inches.

7.G.2

5) A spinner has 8 equal sections. Three sections are yellow and five sections are blue. What is the probability of spinning and landing on red?

7.SP.5

Warm-Up 3

1) -12 + 15 + (-30) + 17 =

7.NS.3

2) Convert 5/16 to a decimal using long division.

7.NS.2d

3) Solve the equation.
12x + 3 = 51

7.EE.4a

4) Find the area of a circle, in terms of pi, if the radius is 12 cm.

7.G.4

5) The Jenson family enjoyed a meal at the Burger Barn and decided to leave a 20% tip for their server. The bill was $38.74. Round to the nearest dollar and then determine how much the Jenson family should leave for a tip.

7.RP.3

Warm-Up 4

1) 41.23 - 17.386 =

7.NS.3

2) Find y if y = -7x - 6 and x = 5.

7.EE.4a

3) The letters in the word "baseball" are placed in a bag. If a letter is picked at random, what is the probability that an "a" will be selected? Give the answer as a fraction is simplest form.

7.SP.5

4) What is the area of a circle that has a radius of 4 inches? (Use 3.14 for pi.)

7.G.4

5) Victor bought a sports car for $30,000. If the state sales tax rate is 8%, how much will Victor have to pay after the sales tax?

7.RP.3

Warm-Up 5

1) 3(-5)(-7) =

7.NS.2a

2) What is the sum of 52 and its additive inverse?

7.NS.1b

3) In a survey 80 out of 100 people supported building a new library. If 450 people were asked if they supported building the library, how many would you expect to say yes?

7.SP.2

4) Find the area of a rectangular room (in square feet) that is 15 feet by 120 inches.

7.G.6

5) Trent bought five tickets to the movies and spent $12.35 on snacks and drinks. Let t = the cost of one movie ticket and c = the total amount of money that Trent spent. Write an equation that could be used to determine how much money Trent spent.

7.EE.4a

Warm-Up 6

1) $7 \div 0 =$

7.NS.2b

2) Combine like terms: $3x + 11y - 10z - 5y - 4z + 12x$

7.EE.1

3) Find the simple interest on $8,000 at 3% interest for 2 years.

7.RP.3

4) A single number cube is rolled. Find the probability of rolling a number that is less than 8

7.SP.5

5) Tell whether or not the quantities below are in a proportional relationship.

Miles	Hours
120	3
200	5

7.RP.2a

Warm-Up 7

1) $13{,}422 \div (-3) =$

7.NS.2b

2) Find the distance between -48 and 17 on a number line.

7.NS.1c

3) A map has a scale of 1 inch = 50 miles. If the distance between two cities is 325 miles, what is the distance between the cities on the map?

7.G.1

4) Find the area of a triangle with a base of 10 meters and a height of 6 meters.

7.G.6

5) Robert has $83.00 and is saving for a new skateboard that costs $125.00. He is able to save $7.00 per week. Write and solve an inequality for this situation if w represents the number of weeks that Robert must save to buy the skateboard.

7.EE.4b

Warm-Up 8

1) $5(3x - 9) =$

7.NS.2a

2) Convert 4/11 to a decimal using long division.

7.NS.2d

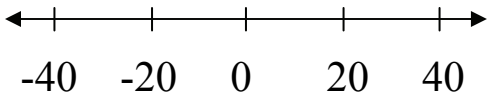
3) A store buys an item for $45.00 and then adds a 100% markup to the price. How much will the item sell for in the store?

7.RP.3

4) James and Rose ate 1/2 of a pizza. Later James ate another 1/4 and Rosa ate 1/8 of the pizza. What fraction of the total pizza was eaten?

7.NS.1b

5) Refer to the number line below to write the equation that represents this situation: start at -25 and move 40 units to the right.



7.NS.1

Warm-Up 9

1) $x + 14 + (-x) =$

7.NS.1a

2) Solve the equation.
$24x - 10 = 62$

7.EE.4a

3) How much is Pete's 12% commission on $50,000 in sales?

7.RP.3

4) Jonah had 120 stickers in his sticker collection. If his collection grows by 30%, how many stickers are in his collection?

7.EE.3

5) Is getting tails when you flip a coin a likely event, unlikely event, or neither?

7.SP.5

Warm-Up 10

1) 8(-5)(-6)(-4) =

7.NS.2a

2) Combine like terms: 9x + 20y - 6z - 14y - 5z + 22x

7.EE.1

3) Use the Associative Property to find the sum.
(77 + 68) + 32 =

7.NS.1d

4) Find the area of a circle, in terms of pi, if the radius is 20 ft.

7.G.4

5) One hundred students are asked a survey question as they walk through the front gate at their middle school. Is this a representative sample of the school population?

7.SP.1

Warm-Up 11

1) 1 3/4 + 5 7/8 =

7.EE.3

2) Convert 3/8 to a decimal using long division.

7.NS.2d

3) A sporting goods store buys a basketball for $15.00 and then adds a 75% markup to the price. How much will the basketball sell for in the store?

7.RP.3

4) What is the area of a circle that has a radius of 7 feet? (Use 3.14 for pi.)

7.G.4

5) A map has a scale of 1 inch = 80 miles. What is the actual distance if the distance on the map is 7.5 inches?

7.G.1

Warm-Up 12

1) $(64 \div -4) \div (-2) =$

7.NS.2b

2) Ralph ate 1/2 of a pie before dinner. After dinner he ate 1/3 of what was left. What fraction of the pie did he eat after dinner?

7.EE.3

3) To the nearest percent, what is the probability of rolling a 4 on a number cube?

7.SP.5

4) Identify the constant of proportionality (unit rate) using the table below. Give the rate in feet per second.

Seconds	Feet
5	120
15	360
20	480

7.RP.2b

5) One of two supplementary angles is 53°. Let x = the measure of the other supplementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 13

1) 42.3 (6.8) =

7.NS.3

2) Find y if y = 12x + 18 and x = -10.

7.EE.4a

3) Evaluate using the Commutative Property:
25 (37) (4)

7.NS.2c

4) If Steve multiplied his purchase price by 1.08 to get his total bill, what percent sales tax was he paying?

7.EE.2

5) Is rolling a number less than 6 on a number cube a likely event, unlikely event, or neither?

7.SP.5

Warm-Up 14

1) $17 + 5^2 (4) - 9(2) =$

7.EE.3

2) What is the sum of -95 and its additive inverse?

7.NS.1b

3) Maria read 78 pages in 3 hours. Reading at the same rate, she read 130 pages in 5 hours. Find the unit rate in pages per hour.

7.RP.2b

4) A drawing of a room has a scale of 1 inch = 4 feet. If the actual dimensions of the room are 14 feet by 16 feet , what are the dimensions of the room on the drawing?

7.G.1

5) Tim bought a big screen TV for $1500. If the state sales tax rate is 8%, how much more will Tim have to pay in state taxes?

7.RP.3

Warm-Up 15

1) $7(8x - 6y + 9) =$

7.NS.2a

2) Convert 5/9 to a decimal using long division.

7.NS.2d

3) Two number cubes are rolled. Find the probability of rolling a sum that is greater than 1.

7.SP.5

4) Sketch and name a triangle with angles of 90°, 45°, and 55°.

7.G.2

5) One-half of a pizza sits in front of 5 hungry people. If they finish the pizza, and each person eats the same amount, find the unit rate in pizza per person.

7.RP.1

Warm-Up 16

1) $8.19 \div 3.5 =$

7.NS.3

2) Combine like terms: $31x + 52y - 18z + 39y - 7z - 45x$

7.EE.1

3) Solve the problems below and give the answer (same for each) as a fraction in simplest form:

$-8 \div 12 =$

$8 \div (-12) =$

$-(8 \div 12) =$

7.NS.2b

4) Find the area of a rectangular poster (in cm^2) that is 95 cm by 45 cm.

7.G.6

5) A circular swimming pool has a fence that can be installed on the edge of the pool to protect children when the pool is not being used. If the pool has a diameter of 20 feet, how long is the fence? (Use 3.14 for π)

7.G.1

Warm-Up 17

1) 3/4 (8/9) (6/10) =

7.NS.3

2) Find a 15% tip on a restaurant bill of $26.00.

7.RP.3

3) Evaluate using the Associative Property:
$(43 \cdot 25) \cdot 8$

7.NS.2c

4) What is the circumference of a circle that has a diameter of 10 cm? (Use 3.14 for pi.)

7.G.4

5) Is getting a sum of 2 when you roll two number cubes a likely event, unlikely event, or neither?

7.SP.5

Warm-Up 18

1) $2\ \frac{3}{5} + 4\ \frac{3}{4} =$

7.NS.3

2) Find the distance between -78 and -33 on a number line.

7.NS.1c

3) Use the Commutative Property to find the sum.
$132 + 86 + 368 + 14 =$

7.NS.1d

4) How much is Laura's 18% commission on $200,000 in sales?

7.RP.3

5) A triangular park has an area of 4,000 square feet. If the base of the triangle is 200 feet, find the height of the triangle.

7.G.6

Warm-Up 19

1) -32 (-7) (-5) =

7.NS.3

2) Find the circumference of a circle, in terms of pi, if the diameter is 16.2 feet.

7.G.4

3) Rewrite the following subtraction problem as adding the additive inverse, then solve. -23 - (-74) =

7.NS.1c

4) Matthew hit 25 home runs last year. This year his home run production dropped by 20%. How many home runs did he hit this year?

7.EE.3

5) Tell whether or not the quantities below are in a proportional relationship.

Feet	Second
90	3
160	5

7.RP.2a

Warm-Up 20

1) 51 - (-32) - 15

7.NS.2a

2) Jon travels 1/2 mile in 1/4 hour. Find the unit rate in miles per hour.

7.RP.1

3) The letters in the word "ridiculous" are placed in a bag. If a letter is picked at random, what is the probability that a vowel will be selected? Give the answer as a fraction is simplest form.

7.SP.5

4) Sketch and name a triangle with all 3 sides having a length of 8 inches.

7.G.2

5) Manny has $12,000 and is saving for a used car that costs $15,000. He is able to save $300.00 per month toward his car. Write and solve an inequality for this situation if m represents the number of months that Manny must save to buy the car.

7.EE.4b

Warm-Up 21

1) 12(-2)(-15)(5) =

7.NS.2a

2) What is the sum of -123 and its opposite?

7.NS.1a

3) Find the simple interest on $20,000 at 6% interest for 3 years.

7.RP.3

4) If Leanne multiplied her food bill by 1.2 to get her total restaurant bill, what percent tip was she leaving?

7.EE.2

5) One of two complementary angles is 37°. Let x = the measure of the other complementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 22

1) $8^2 + 3^3 (2) - 11(4) =$

7.EE.3

2) Convert 12/15 to a decimal using long division.

7.NS.2d

3) An table in a furniture store regularly sells for $76.00 but is on sale for 25% off. How much will the table sell for after the discount?

7.RP.3

4) A drawing has a scale of 1 cm = 20 m. What is the actual distance if the distance on the drawing is 3.75 centimeters?

7.G.1

5) The letters for the words "super awesome" are placed in a bag. If a letter is chosen at random, what is the probability of selecting the letter "k"?

7.SP.5

Warm-Up 23

1) 22 1/4 - 7 3/5 =

7.NS.3

2) Find y if y = -7x - 23 and x = 10.

7.EE.4a

3) Rewrite the following subtraction problem as adding the additive inverse, then solve. 86 - (-55) =

7.NS.1c

4) On a scale drawing a door that is 7 feet tall is drawn 2 inches tall. In this scale, 1 inch is equal to how many feet?

7.G.1

5) Identify the constant of proportionality (unit rate) using the table below. Give the rate in pizzas per hour.

Hours	Pizzas
3	72
10	240
15	360

7.RP.2b

Warm-Up 24

1) $18.75 \div 1.25 =$

7.NS.3

2) Combine like terms: $23x - 46y - 6z + 28y - 19z - 17x$

7.EE.1

3) Use the Commutative Property to find the sum.
$452 + 77 + 348 + 123 =$

7.NS.1d

4) What is the probability of randomly selecting a green marble from a bag that contains 4 red marbles, 7 blue marbles, and 5 yellow marbles?

7.SP.5

5) Janet traces a circle on her paper. If the circumference is 9.42 inches, what is the diameter of the circle? (Use 3.14 for π)

7.G.1

Warm-Up 25

1) $7\ \frac{7}{8} \div 2\ \frac{1}{4} =$

7.NS.3

2) Solve the equation.

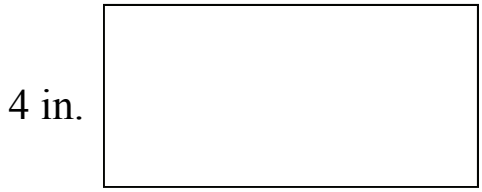
$15x + 8 = 53$

7.EE.4a

3) In a survey 60 out of 80 students were in favor of the new school logo design. If 1,200 students attend the school, how many would be expected to favor the new logo?

7.SP.2

4) Find the actual area of the rectangle shown in the scale drawing below. Use the scale 1 inch = 3 feet.



7.G.1

5) Rizzo's Pizza Parlor sold 127 individual slices of pizza on Tuesday and 159 slices on Wednesday. If each slice is 1/8 of a pizza, how many pizzas did they sell from individual slices on these two days?

7.EE.3

Warm-Up 26

1) $-3(5x - 4y + 6) =$

7.NS.2a

2) Convert 5/6 to a decimal using long division.

7.NS.2d

3) A clothing store buys a dress for $30.00 and then adds a 75% markup to the price. How much will the dress sell for in the store?

7.RP.3

4) If a right rectangular prism is sliced with a plane parallel to its base, what shape would be formed?

7.G.3

5) One hundred fans are asked to name their favorite team as they enter a major league baseball stadium. Is this a representative sample of baseball fans?

7.SP.1

Warm-Up 27

1) $10^2 + 7^0 (23) - 11(2) =$

7.EE.3

2) In the expression 5 + (-7), how far is the sum from 5?

7.NS.1b

3) Evaluate using the Commutative Property:
30 (56) (5) (20)

7.NS.2c

4) Factor the linear expression using the greatest common factor: 12x + 36

7.EE.1

5) Three and one-half pizzas sit in front of 14 hungry people. If they finish the pizzas, and each person eats the same amount, find the unit rate in pizza per person.

7.RP.1

Warm-Up 28

1) 2(-4)(-36)(-25) =

7.NS.2a

2) Find the distance between -85 and -19 on a number line.

7.NS.1c

3) What is the circumference of a circle that has a radius of 7 m? (Use 3.14 for pi.)

7.G.4

4) Fred purchased 3 boxes of golf balls with 2 dozen in each box. If he has used 1 1/6 boxes, how many unused golf balls are left?

7.EE.3

5) The Johnson family sold their house for $350,000. If they have agreed to pay realtor fees of 6%, how much do they owe the realtors?

7.RP.3

Warm-Up 29

1) $15 \div 0 =$

7.NS.2b

2) Find a 20% tip on a restaurant bill of $58.00.

7.RP.3

3) Find the circumference of a circle, in terms of pi, if the radius is 10.5 feet.

7.G.4

4) If Regina multiplied her purchase price by 1.06 to get her total bill, what percent sales tax was she paying?

7.EE.2

5) How much cookie would be left if you ate half of the cookie the first day and half of what was left each day thereafter for the next three days?

7.EE.3

Warm-Up 30

1) 142.6 + 49.95 + 3.286 =

7.NS.3

2) Solve the inequality:
$8x + 4 > 20$

7.EE.4b

3) Dawn travels 3 3/4 mile in 1 1/2 hours. Find the unit rate in miles per hour.

7.RP.1

4) A drawing of a room has a scale of 1 inch = 3 feet. If the actual dimensions of the room are 15 feet by 10.5 feet, what are the dimensions of the room on the drawing?

7.G.1

5) Based on the theoretical probability, how many times should you expect to get a 2 when you roll a number cube 186 times?

7.SP.6

Warm-Up 31

1) $5\ \frac{1}{2} + 3\ \frac{1}{2} \cdot 6$

7.EE.3

2) To the nearest percent, what is the probability of rolling a 2 or a 4 on a number cube?

7.SP.5

3) Use the Associative Property to find the sum.
$(76 + 159) + 41 =$

7.NS.1d

4) Find the area of a triangle with a base of 15 yards and a height of 8 yards.

7.G.6

5) Use the formula $P = 2(l + w)$ to determine the perimeter of a rectangular table if the length is $6\ \frac{1}{2}$ feet and the width is $3\ \frac{1}{2}$ feet.

7.EE.4a

Warm-Up 32

1) $33{,}210 \div (-9) =$

7.NS.2a

2) Find y if $y = -8x + 71$ and $x = 8$.

7.EE.4a

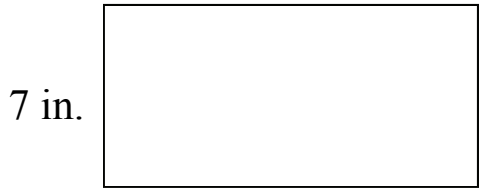
3) A video game regularly sells for $49.00 but is on sale for 30% off. How much will the video game sell for after the discount?

7.RP.3

4) Factor the linear expression using the greatest common factor: $42x + 28$

7.EE.1

5) Find the actual area of the rectangular park shown in the scale drawing below. Use the scale 1 inch = 4 feet.



7.G.1

Warm-Up 33

1) $12^2 + 4\ (23) - 11\ (-2) =$

7.EE.3

2) How much is Rick's 14% commission on $150,000 in sales?

7.RP.3

3) Rewrite the following subtraction problem as adding the additive inverse, then solve. -254 - (62) =

7.NS.1c

4) If a right rectangular prism is sliced with a plane perpendicular to its base, what shape would be formed?

7.G.3

5) There are 38 students in Mr. Reynolds math class and 20 are boys. If a student is selected at random what is the probability that a girl is selected? Give the answer as a fraction in simplest form.

7.SP.7a

Warm-Up 34

1) - 12 - 58 - (-34) =

7.NS.3

2) If the price of an item is represented by p, a final price of 0.7p indicates a discount of what percent?

7.EE.2

3) Solve the problems below and give the answer (same for each) as a fraction in simplest form:

-12 ÷ 15 =

12 ÷ (-15) =

- (12 ÷ 15) =

7.NS.2b

4) A coin is flipped and a number cube is rolled. Use a tree diagram to find the probability of getting heads and a number greater than 2?

7.SP.8a

5) One of two supplementary angles is 118°. Let x = the measure of the other supplementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 35

1) $-48 \div (-4) \div (-4) =$

7.NS.3

2) Combine like terms: $4x - 52y - 31z + 64y - 16z - 23x$

7.EE.1

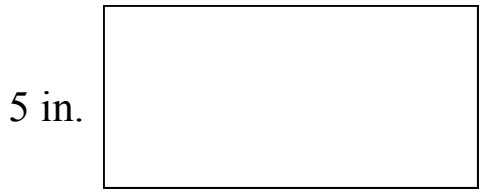
3) The town of Smallville had a population of 700. Now the population is 805. What is the percent increase in the population?

7.RP.3

4) A spinner is divided into eight equal sections. Each section is a different color. Is spinning and landing on blue a likely event, unlikely event, or neither?

7.SP.5

5) Find the actual perimeter of the rectangular park shown in the scale drawing below. Use the scale 1 inch = 5 feet.



7.G.1

Warm-Up 36

1) $3x + 26 + (-3x) =$

7.NS.1a

2) Solve the equation.
$24x + 13 - 15x - 6 = 43$

7.EE.4a

3) Evaluate using the Associative Property:
$(38 \cdot 50) \cdot 4$

7.NS.2c

4) If the area of a triangle is 450 square inches and the base is 30 inches, what is the height?

7.G.6

5) Jay took a road trip to visit some friends who lived in the next state. He stopped after 235.8 miles for gas, another 175.6 miles for lunch, and then 204.7 miles to reach his friend's house. How far did he travel on the trip?

7.EE.3

Warm-Up 37

1) $25 + 3^4 (3) + (-17) =$

7.EE.3

2) Use the Commutative Property to find the sum.
$309 + 19 + 31 + 491 =$

7.NS.1d

3) A coin is flipped and a number cube is rolled. Use an organized list to find the probability of getting tails and a number less than 7?

7.SP.8a

4) What is the circumference of a circle that has a diameter of 20 feet? (Use 3.14 for pi.)

7.G.4

5) Tell whether or not the quantities below are in a proportional relationship.

Students	Teachers
70	2
105	3

7.RP.2a

Warm-Up 38

1) 48.3 (3.4) =

7.NS.3

2) Find the distance between -62 and 59 on a number line.

7.NS.1c

3) Sketch and name a triangle with angles of 90°, 45°, and 45°.

7.G.2

4) Factor the linear expression using the greatest common factor: 17x + 51

7.EE.1

5) Randy is buying a new car for $23,000. If the state sales tax rate is 7%, how much more will Randy have to pay in state taxes?

7.RP.3

Warm-Up 39

1) $-9(3x + 7y - 8) =$

7.NS.2a

2) What is the area of a circle that has a diameter of 10 feet? (Use 3.14 for pi.)

7.G.4

3) In a survey 25 out of 200 students indicated that they would vote for Suzy for class president. If 1,000 students are voting in the election, how many would be expected to vote for Suzy?

7.SP.2

4) Juliet planned on purchasing a $1500 vacation trip. After receiving a 30% discount, how much did she pay?

7.EE.3

5) Identify the constant of proportionality (unit rate) using the table below. Give the rate in TV hours per day.

Days	Hours of TV
2	7
10	35
15	52.5

7.RP.2b

Warm-Up 40

1) 32 + (-57) + (-68) + 20 =

7.NS.3

2) Solve the equation.
18x + 27 - 42x - 12 = -81

7.EE.4a

3) The letters in the word "magnificent" are placed in a bag. If a letter is picked at random, what is the probability that the letter "i" will be selected? Give the answer as a fraction is simplest form.

7.SP.5

4) Find the simple interest on $40,000 at 8% interest for 2.5 years.

7.RP.3

5) One of two complementary angles is 87°. Let x = the measure of the other complementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 41

1) $x \div 0 =$

7.NS.2b

2) Find a 15% tip on a restaurant bill of $126.00.

7.RP.3

3) Based on the theoretical probability, how many times should you expect to get a 5 or 6 when you roll a number cube 423 times?

7.SP.6

4) On a scale drawing a room that is 14 feet long is drawn 4 inches long. In this scale drawing, 1 inch is equal to how many feet?

7.G.1

5) The stock of the Smith Widget Company went up $4.50 one week, down $8.00 the next week, and up $3.50 the week after that. What was the total change in the price of the stock during this three week time period?

7.NS.1a

Warm-Up 42

1) $(3^3 + 2^4 + 84)^0 =$

7.EE.3

2) Convert 7/8 to a decimal using long division.

7.NS.2d

3) Find the area of a triangle with a base of 25 inches and a height of 16 inches.

7.G.6

4) Marta and 3 of her friends earned a $30 for finding a lost dog. If they split the reward evenly, how much will each of them receive?

7.NS.3

5) Janice bought 4 shirts that are red, green, white, and yellow and 3 pairs of pants that are black, light blue, and dark blue. Use an organized list to determine the probability that Janice wears a white shirt and blue pants if she randomly chooses her outfit from her new clothes.

7.SP.8b

Warm-Up 43

1) 10 1/2 ÷ 1 1/2 =

7.NS.3

2) Find y if y = -5x + 60 and x = 7.

7.EE.4a

3) The Taco Shack sells 48 tacos in 2/5 of an hour. Find the unit rate in tacos per hour.

7.RP.1

4) David ate 1/4 of a chocolate pie and Peter ate 2/5. What fraction of the pie still remains?

7.EE.3

5) The area of a classroom floor is 900 square feet. If the classroom ceiling is 10 feet high, what is the volume of the classroom?

7.G.6

Warm-Up 44

1) 762.53 - 84.072 =

7.NS.3

2) Solve the inequality:
$5x + 14 \geq 54$

7.EE.4b

3) Janelle had $120 when she went shopping. After she finished shopping she had $96. What is the percent decrease in her amount of money?

7.RP.3

4) Find the area of a circle, in terms of pi, if the radius is 15 centimeters.

7.G.4

5) Rolanda scored 20, 15, and 16 on her first three math quizzes. Jetta scored 16, 19, and 17 on her quizzes. Using the mean to compare, who has the higher math quiz scores so far?

7.SP.4

Warm-Up 45

1) 5/8 + 1/4 + 5/6 =

7.NS.3

2) What is the sum of -5x and its additive inverse?

7.NS.1b

3) Sheila drove 220 miles in 4 hours. Driving at the same rate, how far would she travel in 7 hours?

7.RP.2b

4) What is the probability of rolling a 7 on a regular number cube?

7.SP.5

5) Two lines intersect, forming four angles. One of two adjacent angles is 126°. Let x = the measure of the other adjacent angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 46

1) Convert 1/3 to a decimal using long division.

7.NS.2d

2) Factor the linear expression using the greatest common factor: 24x + 36

7.EE.1

3) Use the Associative Property to find the sum.
(79 + 218) + 182 =

7.NS.1d

4) Find the area of a rectangular garden that is 8 feet by 16 feet.

7.G.6

5) In a survey 210 out of 300 people were in favor of spending city money to build a new park. If 1,300 people are surveyed, how many would you expect to be in favor of funding the park?

7.SP.2

Warm-Up 47

1) $3(7x - 9y + 6) =$

7.NS.2a

2) What is the area of a circle that has a diameter of 40 feet? (Use 3.14 for pi.)

7.G.4

3) A camera regularly sells for $250.00 but is on sale for 25% off. How much will the camera sell for after the discount?

7.RP.3

4) If Josie multiplied her food bill by 1.1 to get her total restaurant bill, what percent tip was she leaving?

7.EE.2

5) Two hundred people at a dog show are asked to name their favorite pet. Is this a representative sample of the general population?

7.SP.1

Warm-Up 48

1) -15 (-6) (4) =

7.NS.3

2) Solve the equation.
34x + 22 - 40x - 15 = -17

7.EE.4a

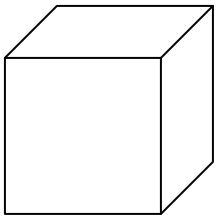
3) To the nearest percent, what is the probability of rolling a number less than 6 on a number cube?

7.SP.5

4) Keith did 78 total push-ups in 3 equal sets. Find the unit rate in push-ups per set.

7.RP.2b

5) Using the formula $A= 6s^2$, find the surface area of a cube with sides measuring 5 inches.



7.G.6

Warm-Up 49

1) 159 + 32.7 + 4.286 =

7.NS.3

2) Evaluate using the Commutative Property:
40 (32) (10) (25)

7.NS.2c

3) Use a tree diagram to find the sample space if a coin is flipped three times. How many possible outcomes are there?

7.SP.8b

4) A sporting goods store buys a basketball for $10.00 and then adds a 110% markup to the price. How much will the basketball sell for in the store?

7.RP.3

5) One of two supplementary angles is 55°. Let x = the measure of the other supplementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 50

1) 3 1/2 · 1 2/3 =

7.NS.3

2) Solve the inequality:
$12x + 4 < 76$

7.EE.4b

3) Rewrite the following subtraction problem as adding the additive inverse, then solve. -328 - (-46) =

7.NS.1c

4) A circular plate has a diameter of 10 inches. What is the distance around the plate?

7.G.4

5) Five pumpkin pies sit in front of 12 hungry people. If they finish the pies, and each person eats the same amount, find the unit rate in pumpkin pie per person.

7.RP.1

Warm-Up 51

1) $186.18 \div 5.8 =$

7.NS.3

2) Combine like terms: $-21x - 12y + 37z - 20y - 18z + 52x$

7.EE.1

3) A coin is flipped two times. Use a tree diagram to find the probability of getting tails twice in a row.

7.SP.8a

4) What is the volume of a box that has a length of 10 inches, a width of 5 inches, and a height of 9 inches?

7.G.6

5) Identify the constant of proportionality (unit rate) using the table below. Give the rate in hours of exercise per day.

Days	Exercise Hours
2	3
10	15
15	22.5

7.RP.2b

Warm-Up 52

1) $72 + 5 \cdot 3^2 - 1^5 =$

7.EE.3

2) Use the Commutative Property to find the sum.
$63 + 115 + 137 + 285 =$

7.NS.1d

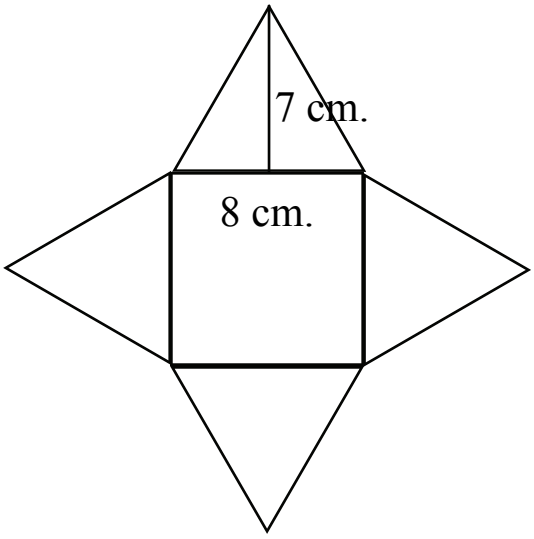
3) Find the simple interest on $5,000 at 6% interest for 3.5 years.

7.RP.3

4) Is randomly selecting the letter "e" from the word "fascinate" a likely event, unlikely event, or neither?

7.SP.5

5) Use the net below to find the surface area of the square pyramid.



7.G.6

Warm-Up 53

1) $9\ \frac{3}{8} \div 3\ \frac{3}{4} =$

7.NS.3

2) Find the distance between -37 and 86 on a number line.

7.NS.1c

3) Gary's hourly wage rose from $12.00 per hour to $15.00 per hour. What is the percent increase in his hourly wage?

7.RP.3

4) Sketch and name a triangle with sides that measure 5, 6, and 7 inches.

7.G.2

5) Wilson bought four tickets to the carnival and spent $23.75 on snacks and drinks. Let t = the cost of one carnival ticket and c = the total amount of money that Wilson spent. Write an equation that could be used to determine how much money Wilson spent.

7.EE.4a

Warm-Up 54

1) 54 1/3 - 9 3/8 =

7.NS.3

2) Solve the inequality:
$8x - 7 \geq 81$

7.EE.4b

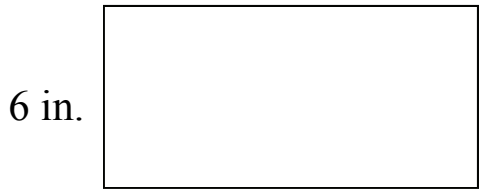
3) Evaluate using the Associative Property:
$(77 \cdot 125) \cdot 8$

7.NS.2c

4) The Knight family was late with their rent payment of $1,300. If their rental agreement called for a late fee of 5%, how much was the late fee?

7.SP.1

5) Find the actual area of the rectangular floor shown in the scale drawing below. Use the scale 1 inch = 2 feet.



7.G.1

Warm-Up 55

1) Convert 21/28 to a decimal using long division.

7.NS.2d

2) Solve the equation.
$2.5x + 3.7 = 18.7$

7.EE.4a

3) The equation $5t = 35$ can be used to show that 5 tickets to the play cost $35.00. What is the unit rate?

7.RP.2b

4) Find the circumference of a circle, in terms of pi, if the radius is 43.25 feet.

7.G.4

5) Frieda's department store bill is $58.65 and she must pay state sales tax of 8%. What number must she multiply $58.65 by in order to find the total amount owed?

7.EE.3

Warm-Up 56

1) $-96 \div (-4) \div 2 =$

7.NS.3

2) Solve the inequality:
$6x - 3 \leq 75$

7.EE.4b

3) Jake had 200 coins in his coin collection and then he sold 25 of them to a coin store. What is the percent decrease in the number of coins in his collection?

7.RP.3

4) Is randomly selecting a vowel from the word "heater" a likely event, unlikely event, or neither?

7.SP.5

5) Two lines intersect, forming four angles. One of two adjacent angles is 79°. Let x = the measure of the other adjacent angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 57

1) $(4^3 + 25 - 2^4) \div 0 =$

7.NS.2b

2) What is the probability of rolling a prime number on a number cube?

7.SP.5

3) Jasmine calculated the cost of a gift to be $50.00. The actual price was $54.00. What is her percent error?

7.RP.3

4) A drawing has a scale of 1 cm = 12 m. What is the actual distance if the distance on the drawing is 5.25 centimeters?

7.G.1

5) Tess has $500 and is saving for a music system that costs $850. She is able to save $50 per month toward the music system. Write and solve an inequality for this situation if m represents the number of months that Tess must save to buy the music system.

7.EE.4b

Warm-Up 58

1) 12.7 (0.32) =

7.NS.3

2) How much is Sam's 11% commission on $350,000 in sales?

7.RP.3

3) Sketch and name a triangle with angles of 140°, 25°, and 15°.

7.G.2

4) Two number cubes are rolled. Find the probability of rolling a number that is less than 14.

7.SP.5

5) Use the formula $P = 2(l + w)$ to determine the perimeter of a rectangular rug if the length is 8 1/2 feet and the width is 5 1/4 feet.

7.EE.4a

Warm-Up 59

1) 64 - 37 - (-29) =

7.NS.3

2) Solve the equation.
52x + 26 - 33x - 17 = 47

7.EE.4a

3) Tell whether or not the quantities below are in a proportional relationship.

Players	Coaches
60	4
76	5

7.RP.2a

4) Find the area of a triangle with a base of 8 feet and a height of 4.5 feet.

7.G.6

5) There are 25 players on a certain major league baseball team. Ten of them are pitchers. If a player is selected at random what is the probability that a pitcher is selected? Give the answer as a fraction in simplest form.

7.SP.7a

Warm-Up 60

1) $8x + 91 + (-8x) =$

7.NS.1a

2) Convert 1/12 to a decimal using long division.

7.NS.2d

3) Celine is buying new furniture for $2,500. If the state sales tax rate is 6%, how much will Celine have to pay altogether for the furniture, including tax?

7.RP.3

4) A drawing of a room has a scale of 1 inch = 3 feet. If the actual dimensions of the room are 18 feet by 13.5 feet, what are the dimensions of the room on the drawing?

7.G.1

5) There were 180 people at a company barbecue. Half of the people chose chicken for their meal and two-thirds of those chose corn as a side dish. How many people at the barbecue chose chicken and corn?

7.SP.1

Warm-Up 61

1) 55 + (-77) + (-27) + 16 =

7.NS.3

2) Rachel travels 1/2 mile in 1/5 hour. Find the unit rate in miles per hour.

7.RP.1

3) Brad was going to make $53.85 a day for 5 days in his new job. He figured that he would make about $350.00. Is this a reasonable answer?

7.EE.3

4) If a right rectangular pyramid is sliced with a plane parallel to its base, what shape would be formed?

7.G.3

5) Richard ran 6, 6.5, and 11.5 miles on three runs. Todd ran 8.2, 7.4, and 9.8 miles on three runs. Using the mean to compare, who has the higher average per run?

7.SP.4

Warm-Up 62

1) 63.5 (0.38) =

7.NS.3

2) In the expression 3 + (-8), how far is the sum from 3?

7.NS.1b

3) The equation 8t = 22 can be used to show that 8 ice cream cones cost $22.00. What is the unit rate?

7.RP.2b

4) A spinner has four equal sections that are red, green, blue, and yellow. If a number cube is rolled and the spinner is spun, find P(5, B).

7.SP.8a

5) One of two complementary angles is 42°. Let x = the measure of the other complementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 63

1) $19 - 3 \cdot 5^2 + 3 \cdot 8 =$

7.EE.3

2) Find a 25% tip on a restaurant bill of $64.00.

7.RP.3

3) Five slices of pizza cost $8.75. Let t = total cost and n = the number of pizza slices purchased. Write an equation that can be used to represent the total cost of n slices.

7.RP.2c

4) Sketch and name a quadrilateral with no right angles and four equal sides.

7.G.2

5) Chen needs a board that is 6 3/4 feet long to complete a project. If he has a board that is 8 3/8 feet long, how much must he cut off to create the correct length?

7.NS.3

Warm-Up 64

1) $3/4 + 2/3 + 5/6 =$

7.NS.3

2) Factor the linear expression using the greatest common factor: $27x + 45$

7.EE.1

3) If the area of a triangle is 160 square feet and the base is 20 feet, what is the height?

7.G.6

4) Is rolling a number greater than 1 on a number cube a likely event, unlikely event, or neither?

7.SP.5

5) Identify the constant of proportionality (unit rate) using the table below. Give the rate in phones per family.

Families	Phones
4	14
12	42
20	70

7.RP.2b

Warm-Up 65

1) Write $-18 \div 21$ as a fraction in simplest form.

7.NS.2b

2) Solve the inequality:
$9x - 11 < 52$

7.EE.4b

3) Marty walked 10.5 miles in 3 hours. Walking at the same rate, how far would she travel in 5 hours?

7.RP.2b

4) What is the volume of a rectangular prism that has a length of 12 inches, a width of 7 inches, and a height of 8 inches?

7.G.6

5) In a survey 98 out of 100 students at Eureka Middle School were against adding another hour to the school day. If 850 students attend Eureka Middle School, how many would you expect to be against adding another hour?

7.SP.2

Warm-Up 66

1) Combine like terms: 56x - 33y + 21z - 10y - 28z - 60x

7.EE.1

2) Use the Associative Property to find the sum. (39 + 237) + 263 =

7.NS.1d

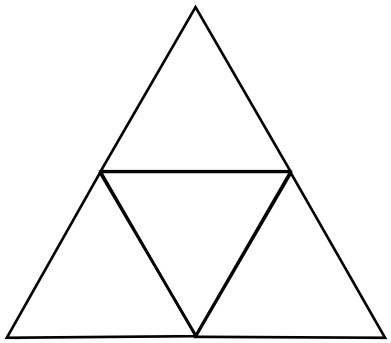
3) Two and one-half apple pies sit in front of 8 hungry people. If they finish the pies, and each person eats the same amount, find the unit rate in apple pie per person.

7.RP.1

4) What is the probability of selecting an "a" at random from the word "nonsense"?

7.SP.5

5) Use the net below to find the surface area of the triangular pyramid. The four congruent triangles each have a base of 9 inches and a height of 8 inches.



7.G.6

Warm-Up 67

1) Write -63 ÷ 4 as a decimal.

7.NS.2b

2) Find the area of a rectangle with length 5x and width 7y.

7.G.6

3) The number of students in Mr. Phillips math class increased from 30 to 36. What is the percent increase in his class size?

7.RP.3

4) A spinner is divided into eight equal sections. Four sections are green and four are purple. Is spinning and landing on purple a likely event, unlikely event, or neither?

7.SP.5

5) Jack's bill at Tasty Tacos is $23.00 and he must pay state sales tax of 7%. What number must he multiply $23.00 by in order to find the total amount owed?

7.EE.2

Warm-Up 68

1) -84 - 36 - (-41) =

7.NS.3

2) To the nearest percent, what is the probability of rolling a number less than 5 on a number cube?

7.SP.5

3) Seven doughnuts cost $5.25. Let t = total cost and n = the number of doughnuts purchased. Write an equation that can be used to represent the total cost of n doughnuts.

7.RP.2c

4) If Frances multiplied her purchase price by 1.05 to get her total bill, what percent sales tax was she paying?

7.EE.2

5) Frank's test average in science class was 92%. On the next three tests he scored 98%, 88%, and 90%. Assuming that all of the tests had the same weight, by what percentage did Frank's test average change?

7.NS.1a

Warm-Up 69

1) 5 2/3 - 2 3/5 =

7.NS.3

2) If Kai makes $25.00 per hour and then he gets a 25% raise, what is his new salary?

7.EE.3

3) Solve the problems below and give the answer (same for each) as a fraction in simplest form:

-20 ÷ 30 =

20 ÷ (-30) =

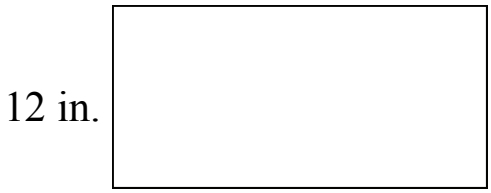
- (20 ÷ 30) =

7.NS.2b

4) Use a tree diagram to find the sample space if a number cube is rolled and a coin is flipped. How many possible outcomes are there?

7.SP.8b

5) Find the actual perimeter of the rectangular park shown in the scale drawing below. Use the scale 1 inch = 3 feet.



7.G.1

Warm-Up 70

1) $6\ 7/8 \div 2\ 3/4 =$

7.NS.3

2) Find the circumference of a circle, in terms of pi, if the diameter is 23.7 feet.

7.G.4

3) A smart phone regularly sells for $180.00 but is on sale for 30% off. What is the amount of the discount?

7.RP.3

4) If the price of an item is represented by p, a final price of 0.55p indicates a discount of what percent?

7.EE.2

5) There are 32 adults at a family reunion. Eighteen of them are women. There are 26 kids at the reunion. Fourteen of them are boys. If a person at the reunion is chosen at random, what is the probability that it will be an adult male? Give the answer as a fraction in simplest form.

7.SP.7a

Warm-Up 71

1) What is the sum of 567 and its opposite?

7.NS.1a

2) What is the volume of a box that has a length of 18 inches, a width of 12 inches, and a height of 4 inches?

7.G.6

3) The equation $3t = 37.50$ can be used to show that 3 pizzas cost $37.50. What is the unit rate?

7.RP.2b

4) Round each term to the nearest whole number and then estimate the sum: $42.36 + 15.921 + 64.8 + 71.499$

7.EE.3

5) A spinner has three equal sections colored red, blue, and green. Based on the theoretical probability, how many times should you expect to get red or green when you spin the spinner 351 times?

7.SP.6

Warm-Up 72

1) Convert 1/8 to a decimal using long division.

7.NS.2d

2) Solve the inequality:
$4x + 16 \geq 56$

7.EE.4b

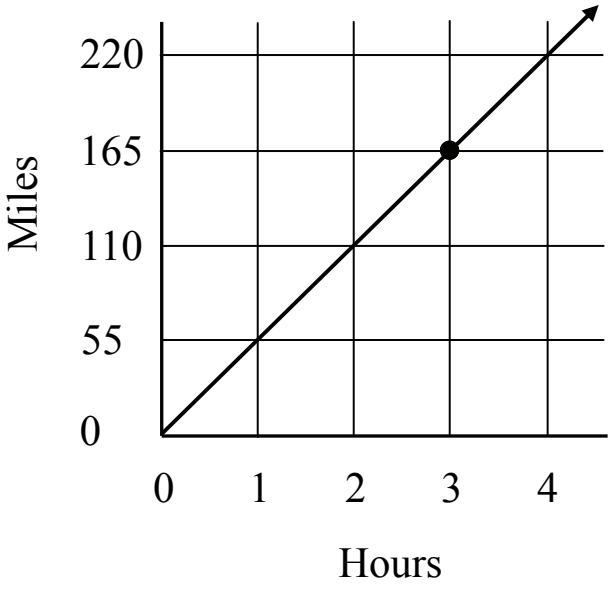
3) A coin is flipped and a number cube is rolled. What is the probability of getting tails and a number greater than 5?

7.SP.8a

4) What is the area of a circle that has a diameter of 20 feet? (Use 3.14 for pi.)

7.G.4

5) Give the coordinates of the point on the graph. Then find the unit rate.



7.RP.2d

Warm-Up 73

1) 5 1/2 · 4/22 =

7.NS.3

2) How much is Cesar's 8% commission on $450,000 in sales?

7.RP.3

3) If Carter multiplied his food bill by 1.18 to get his total restaurant bill, what percent tip was he leaving?

7.EE.2

4) A map has a scale of 1 inch = 45 miles. What is the actual distance if the distance on the map is 6 1/2 inches?

7.G.1

5) In a survey 90 out of 120 parents of students at Franklin Middle School were in favor of the new music program. If there are 800 parents of Franklin Middle School students, how many would you expect to be in favor of the new music program?

7.SP.2

Warm-Up 74

1) $19x + (-62) + (-19x) =$

7.NS.1a

2) Evaluate using the Associative Property:
$(237 \cdot 20) \cdot 50$

7.NS.2c

3) What is the probability of randomly selecting the letter "c" from the word "uncommon"?

7.SP.5

4) Sketch and name a triangle with angles of 84°, 62°, and 37°.

7.G.2

5) Four siblings took turns babysitting their young cousin. If they divided the 5 hour shift evenly, how long did each one babysit for? Give the answer in hours and minutes.

7.EE.3

Warm-Up 75

1) $6\ (5 + 7) \div 3 - 35 =$

7.EE.3

2) Find the distance between -97 and 0 on a number line.

7.NS.1c

3) Tell whether or not the quantities below are in a proportional relationship.

Dogs	Cats
22	36
33	54

7.RP.2a

4) If a right rectangular pyramid is sliced with a plane perpendicular to its base and containing its vertex, what shape would be formed?

7.G.3

5) Nathan smiled at 50 people one day and recorded that 36 people smiled back at him. Based on his observations, how many people should Nathan expect to return a smile if he smiles at 650 people over a period of time?

7.SP.7b

Warm-Up 76

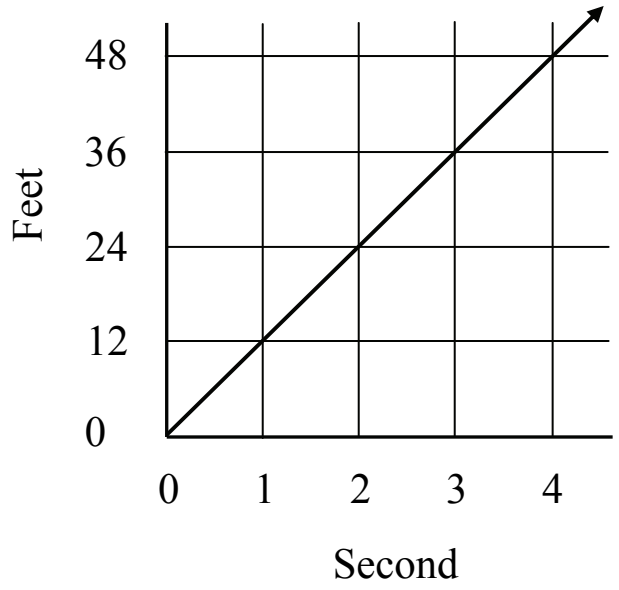
1) Write -82 ÷ 6 as a decimal.

7.NS.2b

2) Solve the inequality:
$3.5x + 8 > 15$

7.EE.4b

3) Are the two quantities in a proportional relationship?



7.RP.2a

4) Is randomly selecting the ace of spades from a deck of cards a likely event, unlikely event, or neither?

7.SP.5

5) One of two supplementary angles is 112°. Let x = the measure of the other supplementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 77

1) 2.38 + 647 + 73.595 =

7.NS.3

2) If the price of an item is represented by p, a final price of 0.9p indicates a discount of what percent?

7.EE.2

3) A bag contains 5 red marbles and 7 green marbles. Find the probability of randomly selecting a marble from the bag that is not purple.

7.SP.5

4) Lance did 184 total sit-ups in 4 sets. If Dan did 5 sets with the same number of sit-ups per set, how many sit-ups did he do.?

7.RP.2b

5) A circular brick planter surrounds a large tree. If the circumference is 15.7 inches, what is the diameter of the circle? (Use 3.14 for π)

7.G.1

Warm-Up 78

1) What is the sum of 621 and its additive inverse?

7.NS.1b

2) Find the area of a triangle with a base of 12 inches and a height of 2.75 inches.

7.G.6

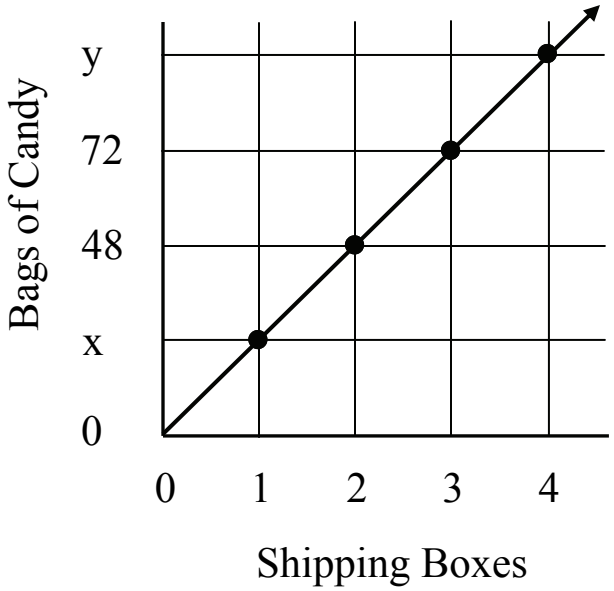
3) A box holds 6 smaller boxes with 160 paper clips in each box. If 1 1/2 of the boxes have been used, how many paper clips are left?

7.EE.3

4) To the nearest percent, what is the probability of rolling a number greater than 3 on a number cube?

7.SP.5

5) The two quantities represented in the graph below are in a proportional relationship. Find the values of x and y.



7.RP.2d

Warm-Up 79

1) -32 (8) (20) =

7.NS.3

2) Rachel travels 1/2 mile in 1/9 hour. Find the unit rate in miles per hour.

7.RP.1

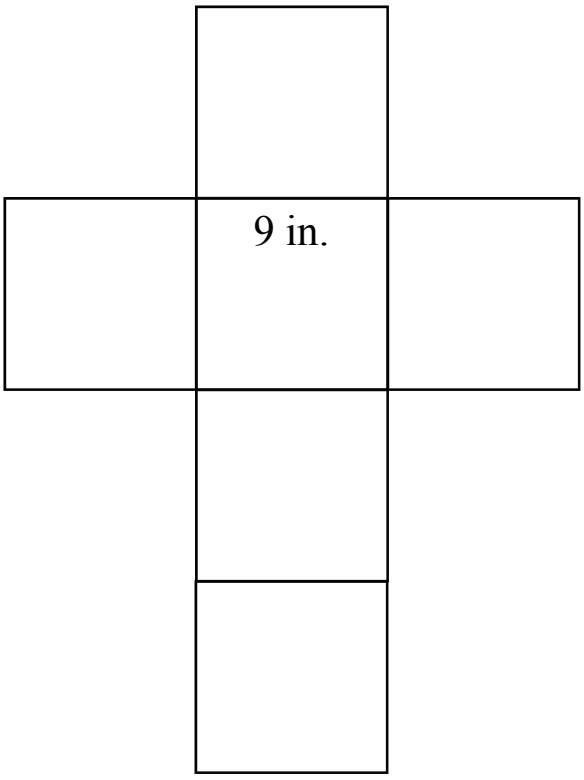
3) Use the formula $P = 2(l + w)$ to determine the perimeter of a rectangular desk if the length is 7 1/2 feet and the width is 3 1/2 feet.

7.EE.4a

4) Gina surveyed 20 people on her street about a city problem. Did she have a representative sample?

7.SP.1

5) Use the net below to find the surface area of the cube.



7.G.6

Warm-Up 80

1) 413 - 72.167 =

7.NS.3

2) Convert 11/15 to a decimal using long division.

7.NS.2d

3) The equation 5t = 135 can be used to show that Paul drove 135 miles on 5 gallons of gas. What is the unit rate?

7.RP.2b

4) A bag contains 7 purple marbles and 1 red marble. Is randomly selecting a purple marble a likely event, unlikely event, or neither?

7.SP.5

5) A drawing of a room has a scale of 1 inch = 4 feet. If the actual dimensions of the room are 22 feet by 19 feet, what are the dimensions of the room on the drawing?

7.G.1

Warm-Up 81

1) 43 + (-70) + (-56) + 27 =

7.NS.3

2) Solve the inequality:
$6x + 21 < 57$

7.EE.4b

3) A surf shop buys a pair of sandals for $8.00 and then adds a 125% markup to the price. How much will the sandals sell for in the store?

7.RP.3

4) Find the area of a circle, in terms of pi, if the diameter is 50 centimeters.

7.G.4

5) Two lines intersect, forming four angles. One of two adjacent angles is 14°. Let x = the measure of the other adjacent angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 82

1) $-120 \div (-5) \div (-4) =$

7.NS.3

2) Solve the equation.
$27x + 32 - 19x - 39 = 33$

7.EE.4a

3) Hans thought that it would take him 8 cans of paint to finish painting the house. He only ended up needing 7 cans . What was his percent error?

7.RP.3

4) If the area of a triangle is 90 square feet and the base is 15 feet, what is the height?

7.G.6

5) Leah has saved $95 toward a new bicycle that costs $215. She is able to save $30 per month toward the bicycle. Write and solve an inequality for this situation if m represents the number of months that Leah must save to buy the bicycle.

7.EE.4b

Warm-Up 83

1) $9 (3 - 7) \div (3 + 7) =$

7.EE.3

2) Evaluate using the Commutative Property:
$20 (63) (25) (2)$

7.NS.2c

3) Find the area of a rectangle with length $8x$ and width $4x$.

7.G.6

4) How many outcomes are possible if you roll a number cube and then select a card from a standard deck with 52 cards?

7.SP.8b

5) There were 150 baseball players on 6 major league teams. Each team has the same number of players. Let t = total players and n = the number of teams. Write an equation that can be used to represent the total number of players on n teams.

7.RP.2c

Warm-Up 84

1) $32\ \frac{5}{9} + 17\ \frac{1}{3} =$

7.NS.3

2) Use the Associative Property to find the sum.
$(76 + 541) + 159 =$

7.NS.1d

3) Sylvia had 45 DVDs in her collection and then she donated 18 of them to the local library. What is the percent decrease in the number of DVDs in her collection?

7.RP.3

4) What is the probability of randomly selecting a vowel from the word “ultimate”?

7.SP.5

5) A spinner has five equal sections. Two are red, two are blue, and one is green. Based on the theoretical probability, how many times should you expect to get blue when you spin the spinner 260 times?

7.SP.6

Warm-Up 85

1) Write $-45 \div 48$ as a fraction in simplest form.

7.NS.2b

2) If the price of an item is represented by p, a final price of 0.85p indicates a discount of what percent?

7.EE.2

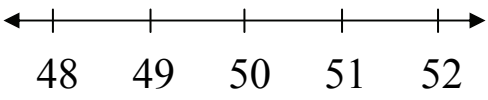
3) Jackson received simple interest on $2,000 at 4% interest for 3 years. If he did not make any new deposits, what was his balance at the end of the 3 years?

7.RP.3

4) If a right rectangular prism is sliced with a plane parallel to its base, what shape would be formed?

7.G.3

5) Joan solved a problem and discovered that the minimum number of people required to hold the event was 50. Graph the inequality $x \geq 50$.



7.EE.4b

Warm-Up 86

1) $-3(-5x + 6y - 1) =$

7.NS.2a

2) Find y if $y = -8x + 64$ and $x = -13$.

7.EE.4a

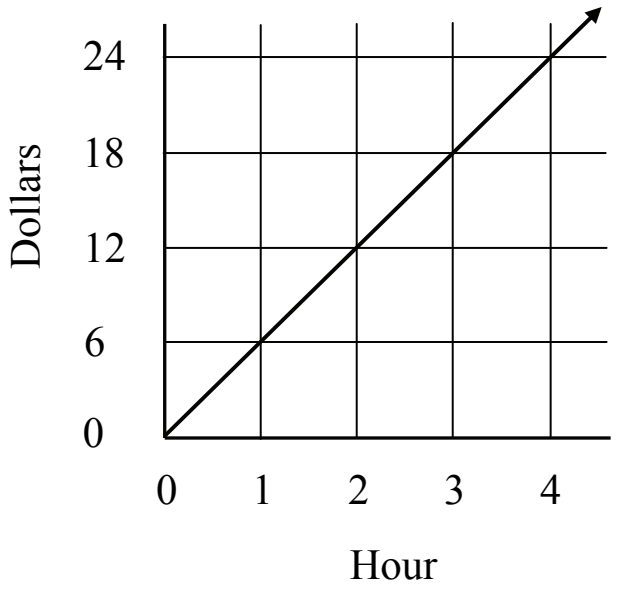
3) A coin is flipped and a number cube is rolled. What is the probability of getting tails and a number greater than 5?

7.SP.8a

4) Rewrite the following subtraction problem as adding the additive inverse, then solve. $-437 - (-93) =$

7.NS.1c

5) Are the two quantities in a proportional relationship?



7.RP.2a

Warm-Up 87

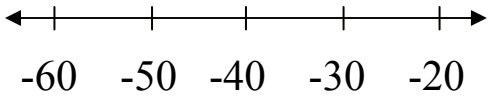
1) Convert 3/16 to a decimal using long division.

7.NS.2d

2) Evaluate using the Commutative Property:
1 3/4 + 5/18 + 2 1/4 =

7.EE.3

3) Refer to the number line below to write the equation that represents this situation: start at -32 and move 15 units to the left.



7.NS.1

4) A clock face has a diameter of 10 inches. What is the area of the clock face?

7.G.4

5) Five hundred voters at supermarkets across the county are asked a question about an upcoming county vote. Is this a representative sample of the general population?

7.SP.1

Warm-Up 88

1) 21 1/6 - 5 1/2 =

7.NS.3

2) Combine like terms: 82x - 26y - 60z - 15y + 49z - 53x

7.EE.1

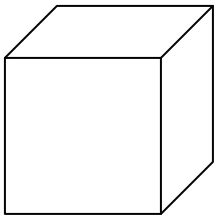
3) Four and one-half feet of red licorice vines are eaten by 7 people . If each person eats the same amount, find the unit rate in feet of licorice per person.

7.RP.1

4) Two number cubes are rolled. Is rolling double sixes a likely event, unlikely event, or neither?

7.SP.5

5) Using the formula $A= 6s^2$, find the surface area of a cube with sides measuring 9 inches.



7.G.6

Warm-Up 89

1) -124 - 90 - (-52) =

7.NS.3

2) Factor the linear expression using the greatest common factor: 32x + 80

7.EE.1

3) Solve the problems below and give the answer (same for each) as a fraction in simplest form:

-55 ÷ 60 =

55 ÷ (-60) =

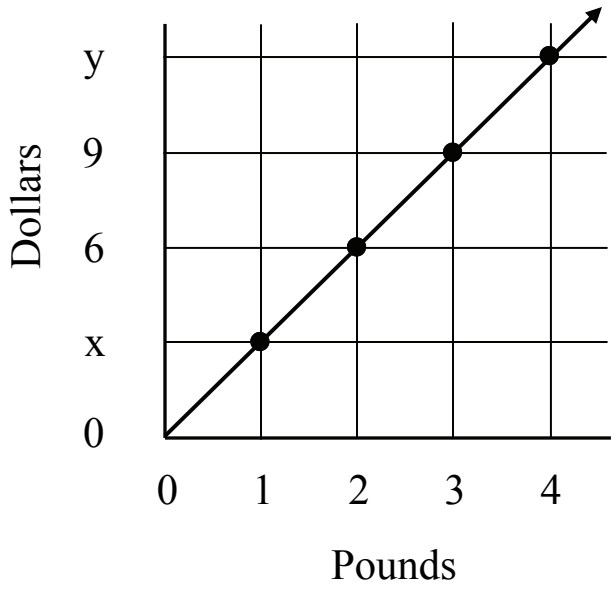
- (55 ÷ 60) =

7.NS.2b

4) On a scale drawing a room that is 31.5 feet long is drawn 6 inches long. In this scale drawing, 1 inch is equal to how many feet?

7.G.1

5) The two quantities represented in the graph below are in a proportional relationship. Find the values of x and y.



7.RP.2d

Warm-Up 90

1) Convert 5/12 to a decimal using long division.

7.NS.2d

2) Solve the equation.
$3.2x - 4.6 = 2.12$

7.EE.4a

3) The Harris family sold their house for $275,000. If they have agreed to pay realtor fees of 6%, how much do they owe the realtors?

7.RP.3

4) What is the area of a circle that has a radius of 3 inches? (Use 3.14 for pi.)

7.G.4

5) There are 12 girls and 8 boys in a volleyball class. If a person is selected at random, what is the probability that it will be a boy? Give the answer as a fraction in simplest form.

7.SP.7a

Warm-Up 91

1) -54,432 ÷ (-12) =

7.NS.2b

2) What is the probability of rolling an 8 on a regular number cube?

7.SP.5

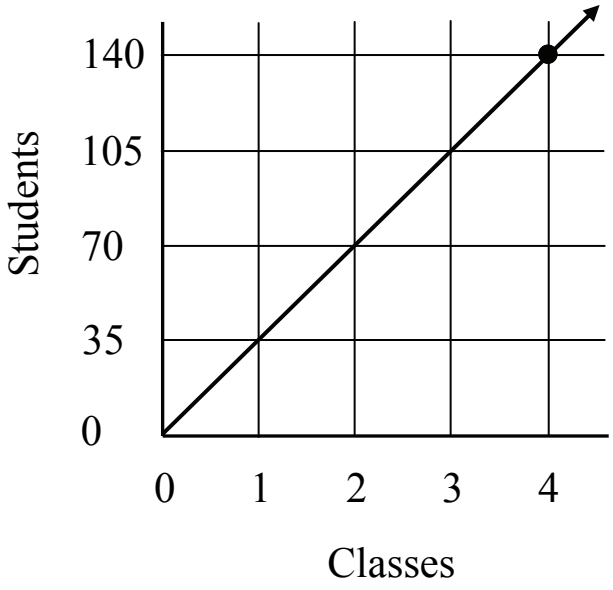
3) One of two complementary angles is 71°. Let x = the measure of the other complementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

4) If Trina multiplied her purchase price by 1.07 to get her total bill, what percent sales tax was she paying?

7.EE.2

5) Give the coordinates of the point on the graph. Then find the unit rate.



7.RP.2d

Warm-Up 92

1) $47.12 \div 3.8 =$

7.NS.3

2) Find the distance between -23.5 and 38.5 on a number line.

7.NS.1c

3) A spinner has five equal sections that are red, green, blue, orange, and yellow. If a number cube is rolled and the spinner is spun, find P(3, G).

7.SP.8a

4) If a right rectangular pyramid is sliced with a plane parallel to its base, what shape would be formed?

7.G.3

5) Identify the constant of proportionality (unit rate) using the table below. Give the rate in hours per week.

Weeks	Hours
4	17
10	42.5
15	63.75

7.RP.2b

Warm-Up 93

1) -62 (-8) (5) =

7.NS.3

2) Solve the inequality:
$15x + 30 \leq 135$

7.EE.4b

3) Marco is buying exercise equipment for $625. If the state sales tax rate is 7%, how much will Marco have to pay altogether for the exercise equipment, including tax?

7.RP.3

4) What is the volume of a box that has a length of 22 inches, a width of 15 inches, and a height of 6 inches?

7.G.6

5) Judy observed 100 people ordering at a fast food restaurant. She recorded that 70 of them ordered sodas while the rest got water or no drink. Based on her observations, how many people should Judy expect to order soda if 850 people visit the restaurant over a period of time?

7.SP.7b

Warm-Up 94

1) 685 + 5.93 + 92.384 =

7.NS.3

2) Use the Commutative Property to find the sum.
48 + 136 + 252 + 264 =

7.NS.1d

3) After working for the summer, Jan's savings account balance grew from $500 to $1,100. What is the percent increase in her savings account balance?

7.RP.3

4) What is the probability of randomly selecting a purple marble from a bag that contains 8 red marbles, 9 blue marbles, and 5 yellow marbles?

7.SP.5

5) Two lines intersect, forming four angles. One of two adjacent angles is 112°. Let x = the measure of the other adjacent angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 95

1) $-12(3x - 4y - 6) =$

7.NS.2a

2) Sketch and name a triangle with sides that measure 5, 7, and 7 inches.

7.G.2

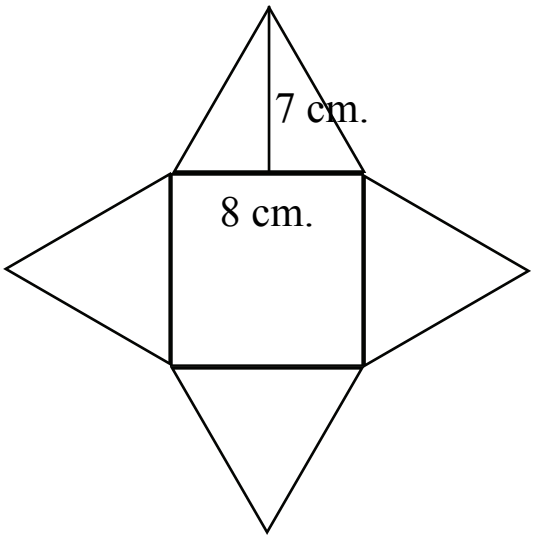
3) Six cheeseburgers cost $13.50. Let t = total cost and n = the number of cheeseburgers purchased. Write an equation that can be used to represent the total cost of n cheeseburgers.

7.RP.2c

4) Round each term to the nearest whole number and then estimate the difference: 89.297 - 57.642

7.EE.3

5) Use the net below to find the surface area of the square pyramid.



7.G.6

Warm-Up 96

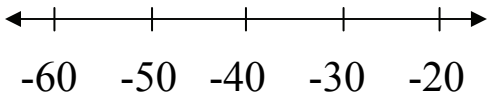
1) What is the sum of -3,587 and its opposite?

7.NS.1a

2) How many outcomes are possible if you flip a coin and then select a card from a standard deck with 52 cards?

7.SP.8b

3) Refer to the number line below to write the equation that represents this situation: start at -54 and move 22 units to the right.



7.NS.1

4) If Tara multiplied her food bill by 1.25 to get her total restaurant bill, what percent tip was she leaving?

7.EE.2

5) A painter is painting a rectangular room that is 15 feet long by 12 feet wide. If the walls are 8 feet tall, what is the area that the painter will paint?

7.G.6

Warm-Up 97

1) 4 2/3 · 1 5/7 =

7.NS.3

2) A map has a scale of 1 inch = 16 miles. What is the actual distance if the distance on the map is 9 3/4 inches?

7.G.1

3) George started a four-day trip with $1,017. He spent about $72 a day for 4 days. George figured that he would have about $700 left after the four days. Is this a reasonable estimate?

7.EE.3

4) A suit regularly sells for $480.00 but is on sale for 25% off. How much will the suit sell for after the discount?

7.RP.3

5) In a survey 80 out of 120 students indicated that they would vote for Keon for class vice president. If 792 students are voting in the election, how many would you expect to vote for Keon?

7.SP.2

Warm-Up 98

1) Solve the equation.
$-20x + 34 + 24x - 48 = 18$

7.EE.4a

2) Find the area of a triangle with a base of 10 meters and a height of 5.6 meters.

7.G.6

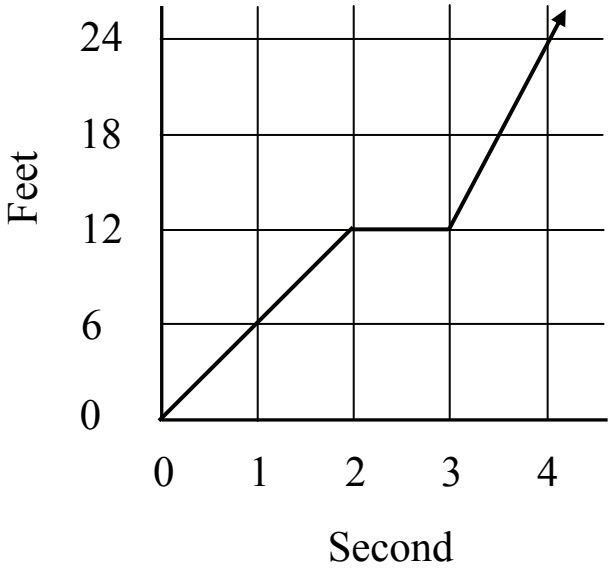
3) A construction crew completes 1/4, then 3/8, and then 1/3 of a brick wall. What fraction of the wall remains to be built?

7.NS.3

4) Is randomly selecting a consonant from the word "August" a likely event, unlikely event, or neither?

7.SP.5

5) Are the two quantities in a proportional relationship?



7.RP.2a

Warm-Up 99

1) Combine like terms:
$3/4x - 1/5y - 5/12x + 1/2y$

7.EE.1

2) Evaluate using the Associative Property:
$(42 \cdot 12) \cdot 25$

7.NS.2c

3) Tell whether or not the quantities below are in a proportional relationship.

Feet	Inches
5	60
8	96

7.RP.2a

4) The area of a living room floor is 180 square feet. If the ceiling is 8 feet high, what is the volume of the living room?

7.G.6

5) Nick scored 30, 24, and 27 on his first three science quizzes. Elias scored 29, 27, and 26 on his quizzes. Using the mean to compare, who has the higher science quiz scores so far?

7.SP.4

Warm-Up 100

1) Write $60 \div (-75)$ as a fraction in simplest form.

7.NS.2b

2) Round each number to the leading digit and estimate the product: 692.7 (42.89)

7.EE.3

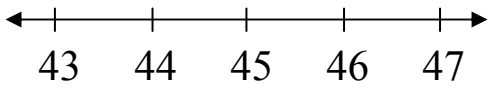
3) Franz received simple interest on $7,000 at 5% interest for 4 years. If he did not make any new deposits, what was his balance at the end of the 4 years?

7.RP.3

4) A map has a scale of 1 inch = 60 miles. If the distance between two cities is 315 miles, what is the distance between the cities on the map?

7.G.1

5) Randall found that the maximum speed on Foster Road is 45 miles per hour. Graph the inequality $x \leq 45$.



7.EE.4b

Warm-Up 101

1) Convert 5/8 to a decimal using long division.

7.NS.2d

2) Solve the inequality:
$-5x + 4 \geq -36$

7.EE.4b

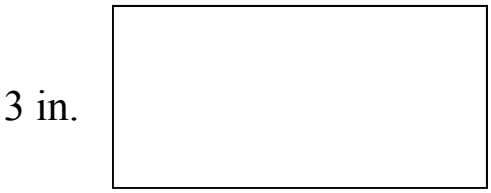
3) Katie leaves a 25% tip on a restaurant bill of $82.00. Including the tip, what is the total amount of her bill?

7.RP.3

4) Is randomly selecting a queen from a deck of cards a likely event, unlikely event, or neither?

7.SP.5

5) Find the actual perimeter of the room shown in the scale drawing below. Use the scale 1 inch = 4 feet.



7.G.1

Warm-Up 102

1) 521.4 - 86.07 =

7.NS.3

2) If Lydia multiplied her purchase price by 1.05 to get her total bill, what percent sales tax was she paying?

7.EE.2

3) A shoe store buys a pair of shoes for $20.00 and then adds a 110% markup to the price. How much is the markup?

7.RP.3

4) Find the area of a circle, in terms of pi, if the diameter is 80 centimeters.

7.G.4

5) Two thousand voters in a town in Wisconsin were asked who they would vote for in the upcoming election for President of the United States. Is this a representative sample of the voting population?

7.SP.1

Warm-Up 103

1) $(15 + 25) \cdot 8 - 3^2 \cdot 4 =$

7.EE.3

2) How much is Josh's 12% commission on $750,000 in sales?

7.RP.3

3) Solve the problems below and give the answer (same for each) as a fraction in simplest form:

$-24 \div 32 =$

$24 \div (-32) =$

$-(24 \div 32) =$

7.NS.2b

4) If a right rectangular prism is sliced with a plane perpendicular to its base, what shape would be formed?

7.G.3

5) Jenny and her best friend Tina are at a beach party with 20 other people. If one person is selected at random to win a raffle prize, what is the probability that it will be Jenny or Tina? Give the answer as a fraction in simplest form.

7.SP.7a

Warm-Up 104

1) $60xy + (-37) + (-60xy) =$

7.NS.1a

2) If the price of an item is represented by p, a final price of 0.8p indicates a discount of what percent?

7.EE.2

3) Smith's Ice Cream Parlor sells 76 cones in 1 1/3 hours. Find the unit rate in cones per hour.

7.RP.1

4) Sketch and name a triangle with sides that measure 8, 9, and 10 inches.

7.G.2

5) A spinner has 8 equal sections. Three sections are blue, 4 are red, and 1 is green. What is the probability of spinning and landing on blue? Give the answer as a fraction is simplest form.

7.SP.5

Warm-Up 105

1) $3\ \frac{1}{3} \cdot \frac{6}{15} =$

7.NS.3

2) Combine like terms:
$5.2x - 3.2y - 7.8x + 8.6y$

7.EE.1

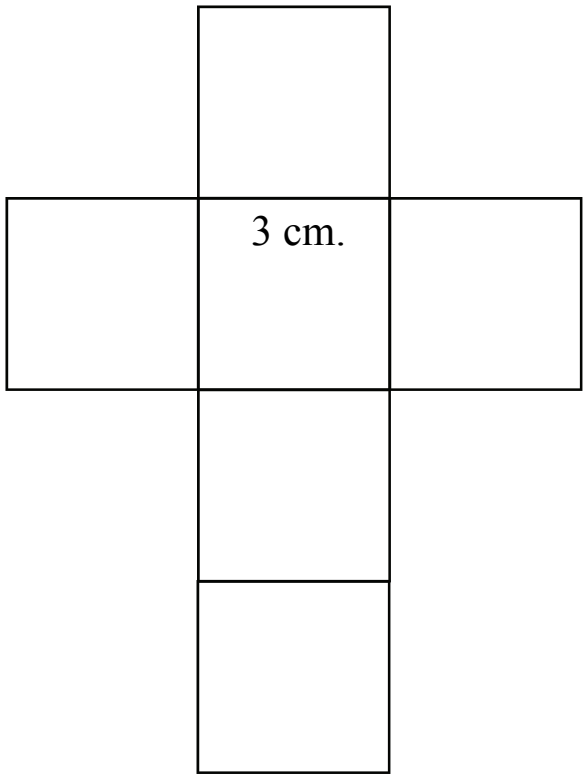
3) Eight frozen yogurts cost $26.00. Let t = total cost and n = the number of frozen yogurts purchased. Write an equation that can be used to represent the total cost of n frozen yogurts.

7.RP.2c

4) To the nearest percent, what is the probability of rolling a number greater than 2 on a number cube?

7.SP.5

5) Use the net below to find the surface area of the cube.



7.G.6

Warm-Up 106

1) 3/10 + 2/5 + 3/4 =

7.NS.3

2) Use compatible numbers to estimate the quotient:
62.95 ÷ 7.25 =

7.EE.4b

3) Molly had 50 antique plates in her collection. Then she sold 9 of them to another collector. What is the percent decrease in the number of plates in her collection?

7.RP.3

4) If the area of a triangle is 72 square feet and the base is 12 feet, what is the height?

7.G.6

5) Sean dropped 70 tennis balls from a second story balcony onto a concrete patio below . Seventy of them bounced. Based on his observations, how many tennis balls should Sean expect to bounce if he drops 200 tennis balls from the balcony?

7.SP.7b

Warm-Up 107

1) 58,212 ÷ (-9) =

7.NS.2a

2) Combine like terms: 62x - 38y - 81z - 22y + 49z - 44x

7.EE.1

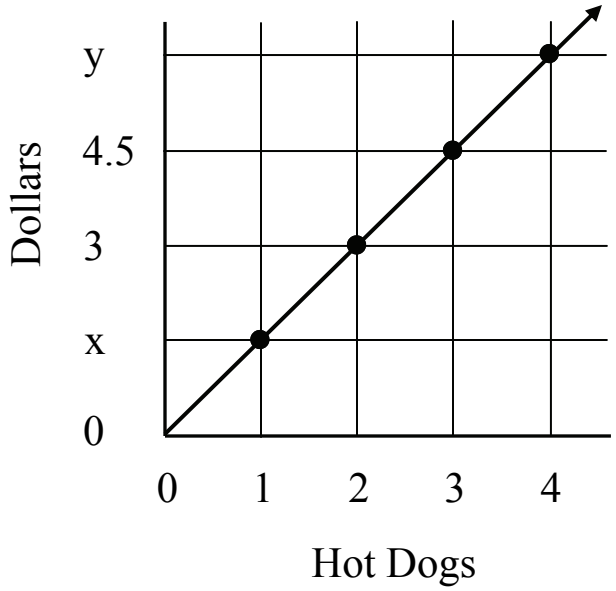
3) Two number cubes are rolled. Is rolling a sum less than ten a likely event, unlikely event, or neither?

7.SP.5

4) What is the area of a circle that has a diameter of 12 inches? (Use 3.14 for pi.)

7.G.4

5) The two quantities represented in the graph below are in a proportional relationship. Find the values of x and y.



7.RP.2d

Warm-Up 108

1) $-200 \div (25) \div (2) =$

7.NS.3

2) Factor the linear expression using the greatest common factor: $72x + 56$

7.EE.1

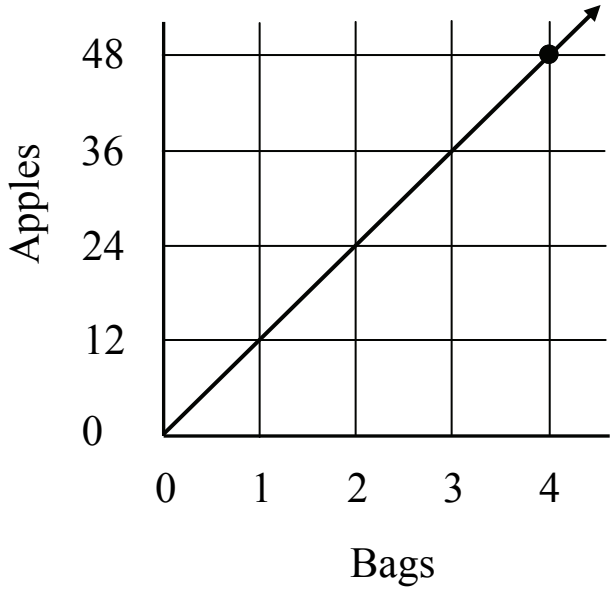
3) Rewrite the following subtraction problem as adding the additive inverse, then solve. $-247 - (320) =$

7.NS.1c

4) If a right rectangular pyramid is sliced with a plane perpendicular to its base and containing its vertex, what shape would be formed?

7.G.3

5) Give the coordinates of the point on the graph. Then find the unit rate.



7.RP.2d

Warm-Up 109

1) Use the Associative Property to find the sum.
$(59 + 388) + 112 =$

7.NS.1d

2) Round each term to the nearest whole number and then estimate the sum: $67.91 + 23.28 + 72.6 + 53.498$

7.EE.3

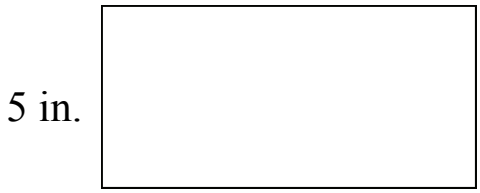
3) Heath read 96 pages in 3 hours. Reading at the same rate, he read 160 pages in 5 hours. Find the unit rate in pages per hour.

7.RP.2b

4) How many outcomes are possible if you roll a number cube and spin a spinner that has eight equal sections with different colors?

7.SP.8b

5) Find the actual area of the rectangular floor shown in the scale drawing below. Use the scale 1 inch = 5 feet.



7.G.1

Warm-Up 110

1) $326 \div 0 =$

7.NS.2b

2) Solve the inequality:
$3/4\ x + 16 > 31$

7.EE.4b

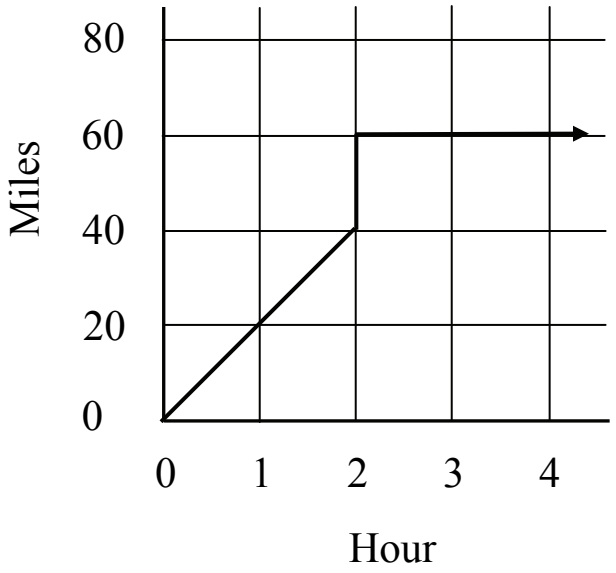
3) A spinner has four equal sections. Two are red, one is blue, and one is green. Based on the theoretical probability, how many times should you expect to get green when you spin the spinner 284 times?

7.SP.6

4) The area of a living room floor is 220 square feet. If the ceiling is 10 feet high, what is the volume of the living room?

7.G.6

5) Are the two quantities in a proportional relationship?



7.RP.2a

Warm-Up 111

1) Find the distance between -49.75 and 31.5 on a number line.

7.NS.1c

2) Find y if y = -3x - 26 and x = -11.

7.EE.4a

3) One and one-half pounds of chocolate are eaten by 5 people . If each person eats the same amount, find the unit rate in pounds of chocolate per person.

7.RP.1

4) On a scale drawing a room that is 42.5 feet long is drawn 5 inches long. In this scale drawing, 1 inch is equal to how many feet?

7.G.1

5) A spinner has five equal sections. Two are red, two are green, and one is blue. If a number cube is rolled and the spinner is spun, find the probability of rolling an even number and spinning green.

7.SP.8a

Warm-Up 112

1) $37 + 3 \cdot 4^2 + 3\,(-6) =$

7.EE.3

2) Convert 7/12 to a decimal using long division.

7.NS.2d

3) Find the simple interest on $8,000 at 4% interest for 2.5 years.

7.RP.3

4) What is the volume of a rectangular prism that has a length of 14 cm, a width of 6 cm, and a height of 11 cm?

7.G.6

5) There are two 5th grade classes at Jones Elementary School. Mrs. Roberts has 17 girls and 18 boys in her class. Mr. Simpson has 16 boys and 19 girls in his class. If a 5th grade student is selected at random, what is the probability that it will be a girl? Give the answer as a fraction in simplest form.

7.SP.7a

Warm-Up 113

1) 85 + (-53) + (-85) + 26 =

7.NS.3

2) What is the probability of getting tails three times in a row when you flip a coin?

7.SP.8a

3) Felipe read 82 pages in 2 hours. Reading at the same rate, how many pages would he read in 5 hours?

7.RP.2b

4) A circular mirror has a diameter of 18 inches. What is the area of the mirror?

7.G.4

5) Riley bought four tickets to a concert and spent $42.50 on souvenirs and food. Let t = the cost of one concert ticket and c = the total amount of money that Riley spent. Write an equation that could be used to determine how much money Riley spent.

7.EE.4a

Warm-Up 114

1) 0.85 + 9.72 + 65.934 =

7.NS.3

2) Find a 15% tip on a restaurant bill of $32.60.

7.RP.3

3) Use the formula $P = 2(l + w)$ to determine the perimeter of a rectangular picture frame if the length is 3.5 feet and the width is 2.75 feet.

7.EE.4a

4) A spinner is divided into eight equal sections. Four sections are yellow, 2 are blue, 1 is green, and 1 is red. Is spinning and landing on yellow a likely event, unlikely event, or neither?

7.SP.5

5) One of two supplementary angles is 52°. Let x = the measure of the other supplementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 115

1) Convert 35/40 to a decimal using long division.

7.NS.2d

2) Solve the equation.
$43x + 85 + 12x - 86 = 384$

7.EE.4a

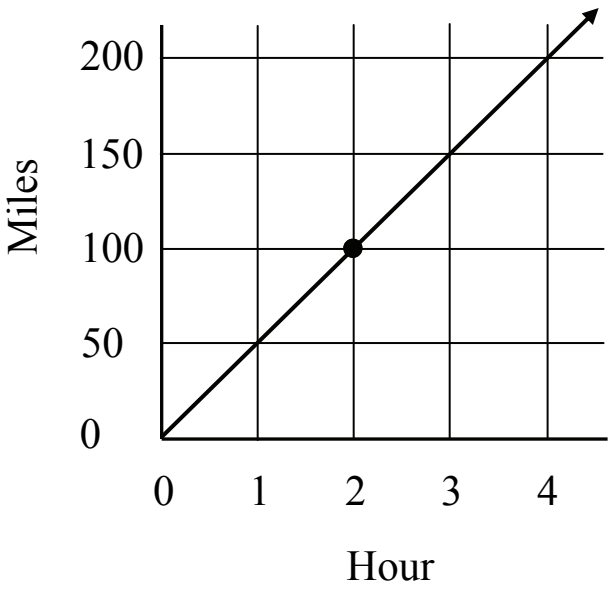
3) A bag contains 3 red marbles, 4 blue marbles and 9 green marbles. Find the probability of randomly selecting a marble from the bag that is not orange.

7.SP.5

4) A triangle has an area of 75 square feet. If the base of the triangle is 50 feet, find the height of the triangle.

7.G.6

5) Give the coordinates of the point on the graph. Then find the unit rate.



7.RP.2d

Warm-Up 116

1) -78 (-6) (-10) =

7.NS.3

2) Solve the inequality:
$9x - 28 < 53$

7.EE.4b

3) A gift shop buys a necklace for $30.00 and then adds a 125% markup to the price. How much is the markup?

7.RP.3

4) Sketch and name a triangle with angles of 120°, 30°, and 30°.

7.G.2

5) Rachel worked at a hamburger restaurant. She asked 75 people if they would like fries with their burger and 45 said yes. Based on her experience, how many people would be expected to order fries if Rachel asked 200 customers?

7.SP.7b

Warm-Up 117

1) Combine like terms: 30x - 25y - 33z - 18y + 56z - 82x

7.EE.1

2) Evaluate using the Commutative Property: 15 (43) (20) (3)

7.NS.2c

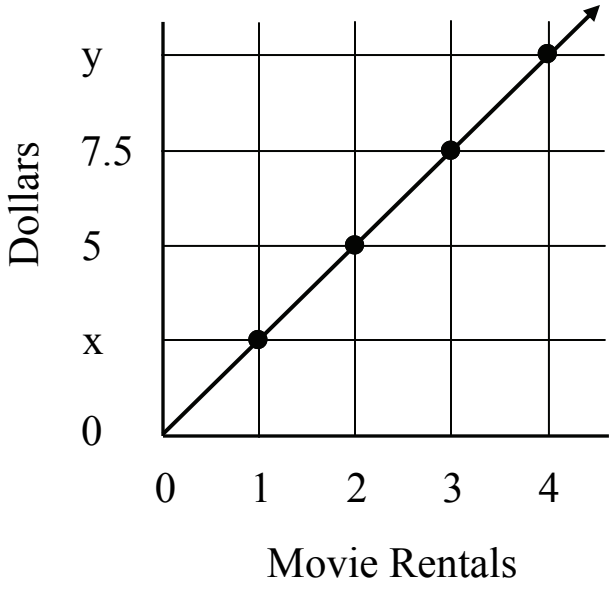
3) Seventy-five students from each grade level at Oak Middle School are asked what their favorite subject is as they enter the school grounds. Is this a representative sample of the Oak population?

7.SP.1

4) Find the area of a triangle with a base of 19 inches and a height of 4.5 inches.

7.G.6

5) The two quantities represented in the graph below are in a proportional relationship. Find the values of x and y.



7.RP.2d

Warm-Up 118

1) 15 1/3 ÷ 5 3/4 =

7.NS.3

2) To the nearest percent, what is the probability of rolling a number greater than 5 on a number cube?

7.SP.5

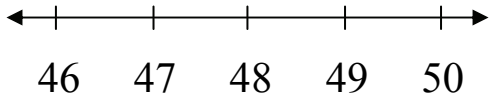
3) Jerry thought that it would take him 20 hours driving over 3 days to reach his destination. It only ended up taking 19 hours of drive time. What was his percent error?

7.RP.3

4) What is the area of a circle that has a radius of 2 inches? (Use 3.14 for pi.)

7.G.4

5) A person must be 48 inches tall to ride the rollercoaster. Graph the inequality $x \geq 48$.



7.EE.4b

Warm-Up 119

1) $74ab + (-99) + (-74ab) =$

7.NS.1a

2) Factor the linear expression using the greatest common factor: $39x + 52$

7.EE.1

3) Fran received simple interest on $12,000 at 5% interest for 3 years. If she did not make any new deposits, what was her balance at the end of the 3 years?

7.RP.3

4) A coin is flipped and a number cube is rolled. What is the probability of getting heads and a number greater than 1?

7.SP.8a

5) One of two complementary angles is 34°. Let x = the measure of the other complementary angle. Write and solve an equation to find the measure of angle x.

7.G.5

Warm-Up 120

1) $-21(2x - 4y - 5) =$

7.NS.2a

2) Solve the inequality:
$-3x - 22 \geq 23$

7.EE.4b

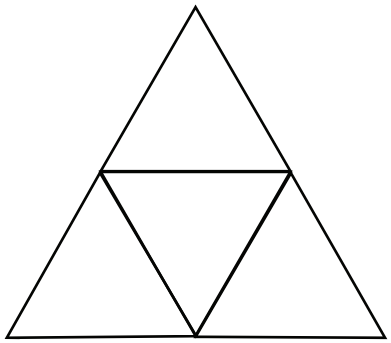
3) Jim is buying a new camping tent for $123. If the state sales tax rate is 8%, how much will Jim have to pay altogether for the camping tent, including tax?

7.RP.3

4) How many outcomes are possible if you roll a number cube and flip a coin?

7.SP.8b

5) Use the net below to find the surface area of the triangular pyramid. The four congruent triangles each have a base of 8 inches and a height of 7 inches.



7.G.6

7th Grade Math Common Core Warm-Up Program

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