C2

Decimals and Fractions

CHAPTER ASSIGNMENT · 26 MARKS

Name _____ Class _____ No. _____ Date _____

> Answer every question in the space given. Do not use a calculator in Lessons 1–4 unless a question says you may. Reduce every fraction answer to lowest terms, and write improper answers as mixed numbers.

Practice questions from *GED® Test Prep Mathematics*, Chapter 2 (Decimals and Fractions), for classroom use. Questions that used a picture in the book (shaded figures, bolts, number lines, a map) give its numbers in words. The answer choices for Lesson 3 question 3.F and Chapter practice P13 are Guru Jazzy's own, because the book's printed choices repeat one answer. The Check yourself and Chapter quiz questions are Guru Jazzy's own.

Lesson 1 · Decimal basics

1.A Round each number as directed.

Question	Answer
Round 3.75 to the tenths place.	
Round 5.908 to the ones place.	
A calculator shows 0.4285714. Round to the nearest hundredth.	
Round 0.66667 to the nearest thousandth.	
Round 8.125 to the nearest tenth.	
A calculator shows 2.7142857. Round to the nearest thousandth.	

1.B Circle the greater number in each pair: 0.45 or 0.449 · 0.008 or 0.08 · 4.68 or 4.086 · 0.75 or 1.85 · 1.0275 or 1.029 · 0.14 or 0.104

1.C Write each set of numbers in order from least to greatest.

Numbers	Least to greatest
5.6, 5.08, 5.8, 5.802	
0.1136, 0.12, 0.2, 0.115	
14.005, 4.52, 4.8, 4.667	
0.8023, 0.8, 0.803, 0.823	

1.D In a circuit board, three parts weigh 0.572 grams, 0.0785 grams and 0.6 grams. Which list is in order from greatest to least?

A	B	C	D
0.0785, 0.572, 0.6	0.6, 0.0785, 0.572	0.6, 0.572, 0.0785	0.572, 0.6, 0.0785

1.E Which shows 1.3815 rounded to the nearest hundredth?

A	B	C	D
1.4	1.382	1.381	1.38

Lesson 2 · Decimal operations

2.1 Rewrite each problem in columns, lining up the decimal points, then solve.

Problem	Answer	Problem	Answer	Problem	Answer
4.025 + 3.971		6.5 + 4.008		2.8 + 9.46	
8.04 − 2.19		8.5 − 1.074		10 − 7.89	
17.294 + 0.8		3.8 − 2.905		14.64 − 10.8	
100.5 − 98.15		0.236 + 2.4 + 2.87		25 − 10.984	

2.2 James ran 3 miles. His times for the miles were 7.2 minutes, 6.8 minutes and 8.25 minutes. How many minutes did the 3 miles take?

A	B	C	D
22.25	22.7	23.35	96.5

2.3 Claudia is paid overtime for hours over 40 in a week. From March 4 to 10 she worked 8.5, off, 9.25, 8.75, 10, off and 7.75 hours. How many overtime hours did she work?

A	B	C	D
44.25	40.0	4.25	2.25

2.4 A plumber cut pieces of 2.8 meters and 1.4 meters from a 6-meter pipe, with no waste. How long is the piece that is left, in meters?

A	B	C	D
1.8	3.2	4.2	7.4

2.5 Mona bought a storage box for $16.98, art markers for $31.78 and a pad of paper for $6.50. What did the three items cost?

A	B	C	D
$48.76	$53.26	$55.26	$61.76

2.6 Solve without a calculator.

Problem	Answer	Problem	Answer	Problem	Answer
5.3 × 0.5		64 × 0.2		12.4 × 0.04	
3.12 ÷ 6		28.8 ÷ 8		6.25 × 1.4	
13.5 × 0.25		39.76 ÷ 2.8		47.4 ÷ 0.003	
15.5 × 2.2		0.944 ÷ 0.4		0.12 × 0.06	

2.7 One container of floor cleaner holds 3.79 liters. Zachary bought 4. How many liters did he buy?

A	B	C	D
0.9475	7.79	12.83	15.16

2.8 Ribbon costs $0.45 per foot. A project needs 20.5 feet. To the nearest cent, what will the ribbon cost?

A	B	C	D
$0.92	$9.23	$9.90	$45.56

2.9 Use the table for (a) and (b).

Cereal	Net weight	Servings per box
Toasted Oats	22.8 oz	19
Crisp Rice	16.9 oz	13
Honey Mix	12.5 oz	10

(a) A box of Toasted Oats costs $4.94. What is the cost per serving? (Divide the price by the number of servings.) [1]

A	B	C	D
$0.49	$0.29	$0.26	$0.22

(b) Lee bought 4 boxes of Honey Mix. How many ounces of cereal did she buy? [1]

A	B	C	D
31.25	50.0	67.6	91.2

Lesson 3 · Fraction basics

3.A Each figure is described in words. Write a fraction for the shaded part. For figures (d) to (f), write both an improper fraction and a mixed number.

Figure	Answer
(a) A bar cut into 5 equal parts, 3 shaded	
(b) A diamond cut into 4 equal parts, 2 shaded	
(c) A bar cut into 3 equal strips, 2 shaded	
(d) 3 circles, each cut into thirds: 3, 3 and 1 parts shaded	
(e) 4 squares, each cut into halves: 2, 2, 2 and 1 parts shaded	
(f) 4 squares, each cut into quarters: 4, 4, 4 and 3 parts shaded	

3.B Write improper fractions as mixed numbers, and mixed numbers as improper fractions.

Problem	Answer	Problem	Answer
17/3		3 3/5	
24/6		5 2/9	
19/4		2 5/12	
43/9		1 3/4	
33/4		5 7/10	

3.C Write an equal fraction with the given denominator. (Hint for the first: 4 × ? = 16.)

Problem	Answer	Problem	Answer
3/4 = ?/16		1/3 = ?/21	
4/5 = ?/60		3/8 = ?/40	
6/25 = ?/100			

3.D Reduce each fraction to lowest terms.

Problem	Answer	Problem	Answer
21/28		4/24	
12/20		26/30	
60/90			

3.E Eighteen out of every 24 people surveyed went to at least one movie in December. What fraction of the people surveyed is that?

A	B	C	D
3/4	2/3	1/3	1/4

3.F Which of the following fractions equals 2/5?

A	B	C	D
4/15	6/10	10/25	5/2

Lesson 4 · Fraction operations

4.1 Add or subtract.

Problem	Answer	Problem	Answer	Problem	Answer
3/8 + 1/8		1/6 + 5/6		7/12 − 5/12	
1/4 + 2/3		1/2 + 5/8		9/10 − 3/5	
7/9 − 1/2		2 1/5 + 1 2/3		4 1/2 − 2 3/4	
6 7/8 + 4 3/4		15 − 3 7/8		13 1/3 − 4 4/9	

4.2 Craig glues a piece of oak 5/16 inch thick to a piece of pine 7/8 inch thick. What is the total thickness, in inches?

A	B	C	D
9/16	1 3/16	1 1/4	1 9/16

4.3 Bolt A is 2 7/8 inches long and bolt B is 1 1/4 inches long. How much longer, in inches, is bolt A than bolt B?

A	B	C	D
5/8	1 3/8	1 5/8	1 3/4

4.4 Melissa sold 8 7/8 yards of cloth from a bolt holding 23 1/4 yards. How many yards are left on the bolt?

A	B	C	D
14 3/8	15 3/8	15 3/4	31 7/8

4.5 A salad dressing uses 1 2/3 cups of olive oil, 1/2 cup of vinegar and 3/4 cup of water. How many cups does it make?

A	B	C	D
1 2/3	2 5/6	2 11/12	3 7/12

4.6 Multiply or divide.

Problem	Answer	Problem	Answer	Problem	Answer
2/3 × 1/4		2/3 × 21		50 × 3/8	
3 1/2 × 1/4		3/4 × 7/8		2 1/3 × 3 2/5	
15 × 2 3/4		7/8 ÷ 1/16		4/5 ÷ 4/9	
12 ÷ 1/4		6 ÷ 2 1/2		3 7/8 ÷ 5 1/6	

4.7 In a survey of 400 voters about a tax to build a stadium, 7/16 were against, 3/16 were for and 3/8 were undecided. How many support the tax?

A	B	C	D
48	75	150	175

4.8 A tailor has 20 yards of fabric. Each shirt needs 2 3/4 yards. How many shirts can she complete?

A	B	C	D
6	7	8	10

4.9 An insurance agent takes 2/3 hour to process a claim. He spends 22 hours a week on claims. About how many claims does he process in a week?

A	B	C	D
14 2/3	33	44	66

Lesson 5 · Fraction and decimal equivalencies

5.1 In a 25%-off sale, clerks find the discount by multiplying the regular price by 0.25. What is the discount on an $80 item?

A	B	C	D
$32.00	$20.00	$16.40	$2.00

5.2 At Linton Products, 3/10 of the 480 workers are in the ride-share program. Which expression finds how many that is?

A	B	C	D
480 × 0.7	480 ÷ 0.7	480 × 0.3	480 ÷ 0.3

5.3 Sharon divides to find the hours she spent on a job. Her calculator shows 4.666666667. How many hours did she spend?

A	B	C	D
4 1/6	4 2/3	4 6/7	46

5.4 You may use a calculator. At 1 p.m. a rain gauge holds 1.125 inches. At 3 p.m. it holds 1.875 inches. What fraction of an inch fell in between?

A	B	C	D
7/8	3/4	7/10	1/8

5.5 You may use a calculator. A 3-meter steel rod is cut into 8 equal pieces. How long is each piece, in meters?

A	B	C	D
0.125	0.333	0.375	2.333

Lesson 6 · Decimals and fractions on the number line

6.1 A number line runs from 0 to 1 1/3 and is marked in thirds. A dot sits on the second mark after 0. What is its value?

A	B	C	D
0	1/2	2/3	1 1/3

6.2 A number line from 2 to 3 is marked at 2, 2.2, 2.4, 2.6, 2.8 and 3. A dot sits on the mark just before 3. What is its value?

A	B	C	D
2	2.5	2.7	2.8

6.3 A number line from 1 to 3 1/2 is marked every half. Point A is at 3 1/2 and point B is at 1 1/2. What is A minus B?

A	B	C	D
1	1 1/2	2	3 1/2

6.4 Angela baked 24 cookies and gave 16 of them to her neighbor. A number line from 0 to 1 is marked at 1/4, 1/3, 1/2, 2/3 and 3/4. Which mark shows the fraction she gave away? [1]

6.5 Write the value of each point as a decimal or a mixed number, as asked.

Number line	Value
4 to 5, marked every 0.125. The dot is halfway between 4.5 and 4.75. (decimal)	
8 to 10, marked every third of a unit. The dot is on the first mark after 9. (decimal)	
2 to 4, marked every third of a unit. The dot is on the first mark after 3. (mixed number)	
11 to 12, marked every sixth of a unit. The dot is on the mark just before 12. (mixed number)	

6.6 Draw a number line from 0 to 2 marked in quarters. Put a dot at 0.75 and another at 1 1/2, and label both. [2]

Lesson 7 · Calculator skills

7.1 Use your calculator.

Problem	Answer	Problem	Answer
3.5 + 1.87 + 2.009		3 2/3 − 1 5/12	
$25.35 × 15		10 1/2 ÷ 1/4	

7.2 Linda earns $95 per day. If she works 8/9 of a day, how much will she earn, to the nearest cent? [1]

7.3 Aaron bought a refrigerator for $956.88, including tax and interest. He pays it in 12 equal monthly payments. How much is each payment? [1]

7.4 An insurance agent finds the yearly cost of home insurance by multiplying the price of the home by 0.0125. What is the cost for a $118,000 home? [1]

7.5 A quilt weighs 5.56 pounds. Shipping is $1.20 per pound. To the nearest cent, what is the shipping charge?

A	B	C	D
$5.56	$6.67	$8.26	$10.20

7.6 A state park has 64 acres. A wildlife preserve makes up 3/8 of the park. How many acres is the preserve?

A	B	C	D
8	21	24	27

Chapter practice questions (calculator allowed)

P1 A wooden flooring strip is 20 1/2 inches long. If you cut 4 3/4 inches off one end, what is the new length, in inches?

A	B	C	D
16 3/4	16 1/4	15 3/4	15 1/4

P2 Three packages weigh 1 1/2 pounds, 4 3/4 pounds and 2 3/10 pounds. What is their average weight, in pounds? (Add the weights, then divide by 3.)

A	B	C	D
2.14	2.85	4.75	8.55

P3 A developer has 20 1/2 acres. Roads will use 6 1/4 acres, and the rest will be split into 1/4-acre lots. How many lots can there be?

A	B	C	D
7	57	81	107

P4 A clinic's guidelines: new-patient visit 3/4 hr, immunizations 1/4 hr, routine physical 1/3 hr, dental scaling 3/4 hr, sick visit 1/2 hr, serious-injury visit 1 1/4 hr.

(a) Ray has two new-patient visits, a serious-injury visit and a dental scaling. How many hours should they take? [1]

A	B	C	D
2 3/4	3 1/2	3 3/4	4

(b) Jennifer works 3 1/2 hours each morning. How many routine physicals could she complete in one morning? [1]

A	B	C	D
4	9	10	11

P5 A garage charges $3.50 for the first hour and $1.25 for each extra 1/2 hour. How much does it cost to park for 2 1/2 hours?

A	B	C	D
$4.75	$6.25	$7.25	$9.75

P6 Susan scheduled 84 appointments. Only 56 patients kept them. What fraction of the appointments were kept? [1]

P7 Jim and Carl must load 250 boxes. So far 175 are loaded. What fraction of the boxes has NOT been loaded?

A	B	C	D
1/5	3/10	3/5	7/10

P8 A number line from 0 to 1 is marked in eighths. Point B is at 1/4 and point A is at 7/8. What is A minus B?

A	B	C	D
1/4	5/8	7/8	1 1/8

P9 Four drill bits measure: cutter 9/16 in, core box 5/32 in, classic 3/8 in, bevel 1/2 in. Which order is least to greatest in size?

A	B	C	D
cutter, bevel, classic, core box	core box, bevel, classic, cutter	bevel, classic, cutter, core box	core box, classic, bevel, cutter

P10 2/3 of homeowners surveyed have a pet. Of those, 3/4 have a dog or a cat. What fraction of all those surveyed has a dog or a cat?

A	B	C	D
1/2	3/4	5/7	6/7

P11 A map shows these distances in miles: A to B 2.4, B to C 4.3, C to D 3.6, A to C 4.0, A to D 4.8. Maya drives A to B, B to C, C to D, D to C, then C to A. How many miles is that?

A	B	C	D
13.9	15.1	17.9	19.1

P12 A mat board is 60 inches wide. How many strips 0.75 inch wide can be cut from it, with no waste? [1]

P13 A cookie recipe needs 1 2/3 cups of sugar. How much sugar do you need for half the recipe?

A	B	C	D
2/5	2/3	5/6	3 1/3

P14 Jerry spends 1/6 of his take-home pay on a car payment and 1/4 on food. What fraction of his pay is left? [2]

Check yourself

1 Write 2.375 in words. Then round it to the nearest tenth and to the nearest hundredth. [3]

2 Work out 3.2 × 0.15 and 7.5 ÷ 0.25 by hand. For each one, explain how you decided where the decimal point goes. [3]

3 Work out 5 1/4 − 2 2/3. Show the common denominator and where you regrouped. [2]

4 Change 5/6 to a decimal by dividing. Explain how you know the decimal repeats, and write it with a bar. [2]

5 A recipe needs 3/4 cup of oil per batch, and you have 4 1/2 cups. How many batches can you make? Write the keys you would press on the TI-30XS. [2]

Chapter quiz

Q1 What is 3.62835 rounded to the nearest hundredth?

A	B	C	D
3.6	3.62	3.63	3.628

Q2 Which of these numbers is the greatest?

A	B	C	D
0.85	0.819	0.8	0.849

Q3 What is 9 − 3.604?

A	B	C	D
6.604	5.404	6.396	5.396

Q4 What is 2.6 × 0.45?

A	B	C	D
11.7	1.17	0.117	3.05

Q5 What is 4.9 ÷ 0.35?

A	B	C	D
1.4	0.14	14	140

Q6 What is 16/5 written as a mixed number?

A	B	C	D
3 1/5	3 1/16	5 1/3	2 6/5

Q7 What is 5/6 + 1/4?

A	B	C	D
6/10	1 1/12	1 1/6	11/12

Q8 Jim splits 8 pounds of nuts into 1/2-pound bags. How many bags can he fill?

A	B	C	D
4	8 1/2	16	10

Q9 What is 0.35 written as a fraction in lowest terms?

A	B	C	D
35/10	3/5	1/35	7/20

Q10 Which decimal is equal to 3/8?

A	B	C	D
0.375	0.38	0.83	0.3

Q11 On a number line, which of these lies between 1/2 and 1?

A	B	C	D
0.45	3/4	1 1/4	0.25

Q12 On the TI-30XS, which key switches 1/8 on the screen to 0.125?

A	B	C	D
2nd, then n/d	The (−) key	The x^2 key	The toggle key ◄►

End of assignment · Check your answers against the chapter at gurujazzy.com/subjects/ged-mathematics/chapter-2-decimals-and-fractions/