

Math 260, Practice Question

<p>1. Write in standard form</p> <p>twenty thousand, two hundred eight</p> <p style="text-align: center;">20,208</p>	<p>2. Round to the nearest 100 thousand</p> <p>1,234,567,890</p> <p style="text-align: center;">1,234,600,000</p>
<p>3. Write in standard form</p> <p>three hundred five and four thousandths</p> <p style="text-align: center;">305.004</p>	<p>4. Round to the nearest hundredth</p> <p>123.45678</p> <p style="text-align: center;">123.46</p>

5. Add

$$765 + 987$$

1,752**6. Subtract**

$$321 - 5400$$

-5,079**7. Multiply**

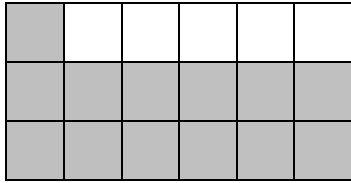
$$872 \times 95$$

82,840**8. Divide**

$$-10,298 \div (-38)$$

271

9. Determine the fraction represented by the shaded region.



$$\frac{13}{18}$$

10. Write as a mixed number

$$\frac{40}{7}$$

$$5\frac{5}{7}$$

11. Write as an improper fraction

$$2\frac{9}{10}$$

$$\frac{29}{10}$$

12. Write the prime factorization of

$$240$$

$$2^4 \cdot 3 \cdot 5$$

13. Multiply and simplify

$$\frac{2}{3} \cdot \frac{9}{56}$$

$$\frac{3}{28}$$

14. Multiply and simplify

$$3\frac{1}{5} \cdot 4\frac{1}{2}$$

$$\frac{72}{5}$$

15. Divide and simplify

$$\frac{2}{15} \div \frac{7}{10}$$

$$\frac{4}{21}$$

16. Divide and simplify

$$1\frac{4}{9} \div 1\frac{5}{6}$$

$$\frac{26}{33}$$

17. Add

$$\frac{1}{7} + \frac{4}{7}$$

$$\frac{5}{7}$$

18. Subtract

$$\frac{3}{11} - \frac{7}{11}$$

$$-\frac{4}{11}$$

19. Add

$$\frac{5}{12} + \frac{1}{8} =$$

$$\frac{13}{24}$$

20. Subtract

$$\frac{23}{24} - \frac{5}{6} =$$

$$\frac{1}{8}$$

21. Add

$$8\frac{2}{7} + 3\frac{1}{7} =$$

$$11\frac{3}{7}$$

22. Subtract

$$9\frac{3}{10} - 2\frac{1}{10} =$$

$$7\frac{1}{5}$$

23. Add

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

$$7\frac{7}{15}$$

24. Subtract

$$3\frac{1}{6} - 1\frac{9}{14} =$$

$$1\frac{11}{21}$$

25. Add

$$14.3 + 6.97 + 0.014$$

21.284**26. Subtract**

$$900 - 2.07$$

897.93**27. Multiply**

$$-5.04 \times 6.7$$

-33.768**28. Divide.** Round your answer to the nearest tenth.

$$80.56 \div 8.2$$

9.8

<p>29. Write as a fraction in simplest form</p> <p>0.016</p> <p>$\frac{2}{125}$</p>	<p>30. Write as a decimal</p> <p>$\frac{3}{20}$</p> <p>0.15</p>
<p>31. Write the numbers in order from smallest to largest</p> <p>0.23, 0.241, 0.24</p> <p>0.23, 0.24, 0.241</p>	<p>32. Write as a ratio of whole numbers using fractional notation. Write the fraction in simplest form.</p> <p>8.2 to 6</p> <p>$\frac{41}{30}$</p>

<p>33. Write as a unit rate 280 calories in an 8 ounce serving</p> <p>35 calories per ounce</p>	<p>34. What is 35% of 40?</p> <p>14</p>
<p>35. 45 is 85% of what?</p> <p>52.94</p>	<p>36. 80 is what percent of 10?</p> <p>800%</p>

<p>37. Find the unknown number</p> $\frac{n}{15} = \frac{2}{5}$ <p>$n = 6$</p>	<p>38. Find the unknown number</p> $\frac{1.6}{4} = \frac{n}{0.6}$ <p>$n = 0.24$</p>
<p>39. Which of the following statements are true?</p> <p>(a) $-3, 0, 5,$ and 12.1 are all integers</p> <p>(b) $\frac{2}{3}, 0, \sqrt{5},$ and π are all rational numbers</p> <p>(c) $0, 5, \sqrt{4},$ and 12.1 are all whole numbers</p> <p>(d) $\sqrt{12}, \pi,$ and $\sqrt{5}$ are all irrational numbers</p>	<p>40. $(5x + 3) + xy = 5x + (3 + xy)$ is an example of which property?</p> <p>(a) Associative property of addition</p> <p>(b) Commutative property of addition</p> <p>(c) Associative property of multiplication</p> <p>(d) Commutative property of multiplication</p>

Times Table

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Rules for Signed Numbers

<i>Addition</i>				<i>Subtraction</i>			
Positive	+	Positive	= Positive	$A - B = A + (-B)$			
POSITIVE	+	Negative	= Positive				
Positive	+	NEGATIVE	= Negative				
Negative	+	Negative	= Negative				
Numbers in bold, capital letters have a greater magnitude than nonbold, lower case partner number.							
<i>Multiplication</i>				<i>Division</i>			
Positive	×	Positive	= Positive	Positive	÷	Positive	= Positive
Positive	×	Negative	= Negative	Positive	÷	Negative	= Negative
Negative	×	Positive	= Negative	Negative	÷	Positive	= Negative
Negative	×	Negative	= Positive	Negative	÷	Negative	= Positive

Examples of Operations with Decimals

$1.2 + 3.45 =$

$$\begin{array}{r} 1.2 \\ + 3.45 \\ \hline 4.65 \end{array}$$

$1.2 \times 3.45 =$

$$\begin{array}{r} 1.2 \\ \times 3.45 \\ \hline 60 \\ 480 \\ 3600 \\ \hline 4.140 \end{array}$$

$3.4 \div 1.2 =$

$$\begin{array}{r} 2.8\bar{3} \\ 1.2 \overline{)3.4000} \\ \underline{24} \\ 100 \\ \underline{96} \\ 40 \\ \underline{36} \\ 4 \end{array}$$

Place Value

Hundred-thousands	Ten-thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths	Ten-thousandths	Hundred-thousandths
		1	2	3	4	.	5	6	7	8	9

Rules for Fractions

For any real numbers, $a, b, c,$ and $d, b \neq 0, c \neq 0,$ and $d \neq 0$

$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$

$\frac{a}{c} - \frac{b}{c} = \frac{a-b}{c}$

$\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$

$\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c} = \frac{ad}{bc}$