

Math 260, Practice Test Problems
Chapters 5 and 6

<p>1. (a) Write in words</p> <p style="text-align: center;">9.2</p> <p>(b) Write in standard form</p> <p style="text-align: center;">eight and twelve hundredths</p>	<p>1. (a) Write as a fraction in simplest form</p> <p style="text-align: center;">0.2</p> <p>(b) Write as a fraction in simplest form</p> <p style="text-align: center;">0.45</p>
<p>3. Write as a decimal</p> <p>(a) $\frac{36}{1000}$</p> <p>(b) $\frac{17}{20}$</p>	<p>4. (a) Round to the nearest tenth</p> <p style="text-align: center;">6.932</p> <p>(b) Round to the nearest thousandth</p> <p style="text-align: center;">36.86258</p> <p>(c) Round to the nearest cent</p> <p style="text-align: center;">\$52.481</p> <p>(d) Round to the nearest cent</p> <p style="text-align: center;">\$845.275</p>

<p>5. Add</p> <p>(a) $6.4 + 2.1$</p> <p>(b) $45.3 + 82.658$</p>	<p>6. Subtract</p> <p>(a) $12.65 - 8.15$</p> <p>(b) $234 - 45.926$</p>
<p>7. Multiply</p> <p>(a) 3.4×5.1</p> <p>(b) 26.523×1.4</p>	<p>8. Divide</p> <p>(a) $5 \overline{)8.34}$</p> <p>(b) $1.2 \overline{)2.16}$</p>

9. Find the circumference and area of a circle that has a radius of 8 cm. You may use 3.14 as the approximation of π .

$$C = 2\pi r$$

$$A = \pi r^2$$

10. Crude oil is currently \$82.90 per barrel. It was \$97.34 per barrel in October. How much less is the price per barrel now than it was in October?

11. Simplify

(a) $\frac{\sqrt{36} + \sqrt{9}}{3}$

(b) $14 + (12.3 - 2.3) \times 5^2$

12. Write as a unit rate

150 calories in a 10 ounce serving

= _____ calories per ounce

13. Complete the table

Percent	Fraction	Decimal
19%		

14. Complete the table

Percent	Fraction	Decimal
	$\frac{83}{100}$	

15.

Percent	Fraction	Decimal
		2.5

16. What is

(a) 10% of 62?

(b) 32% of 120?

<p>17.</p> <p>(a) 20 is what percent of 80?</p> <p>(b) 45 is what percent of 10?</p>	<p>18.</p> <p>(a) 62 is 20% of what number?</p> <p>(b) 140 is 35% of what number?</p>
<p>19. Melanie is going to leave a 20% tip for a meal that costs \$58.45. How much tip will she leave?</p>	<p>20. Find the unknown number</p> $\frac{n}{12} = \frac{3}{10}$

Reference Sheet

Addition Table

+	1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10	11
2	3	4	5	6	7	8	9	10	11	12
3	4	5	6	7	8	9	10	11	12	13
4	5	6	7	8	9	10	11	12	13	14
5	6	7	8	9	10	11	12	13	14	15
6	7	8	9	10	11	12	13	14	15	16
7	8	9	10	11	12	13	14	15	16	17
8	9	10	11	12	13	14	15	16	17	18
9	10	11	12	13	14	15	16	17	18	19
10	11	12	13	14	15	16	17	18	19	20

Multiplication Table

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Rules for Signed Numbers

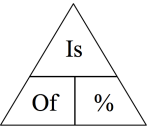
<i>Addition</i>				<i>Subtraction</i>			
Positive	+	Positive	= Positive	$A - B = A + (-B)$			
POSITIVE	+	Negative	= Positive				
Positive	+	NEGATIVE	= Negative				
Negative	+	Negative	= Negative				
Numbers in bold, capital letters have a greater magnitude than nonbold, lower case partner number.			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

$$\begin{array}{r}
 1.2 \\
 + 3.4 \\
 \hline
 4.6
 \end{array}$$

$$\begin{array}{r}
 1.2 \\
 \times 3.4 \\
 \hline
 48 \\
 36 \\
 \hline
 4.18
 \end{array}$$

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

Problem Type	“Is” number unknown	“Of” number unknown	“%” number unknown
		What is $x\%$ of y ?	z is $x\%$ of what?
Example	What is 25% of 80?	20 is 25% of what?	20 is what % of 80?
Equation	$n = 0.25\% \cdot 80$	$20 = 0.25 \cdot n?$ $\frac{20}{0.25} = \frac{0.25 \cdot n}{0.25}$	$20 = n \cdot 80?$ $\frac{20}{80} = \frac{80 \cdot n}{80}$
Solution	$n = 20$	$80 = n$	$0.25 = n$
Interpretation	20 is 25% of 80	20 is 25% of 80	20 is 25% of 80
Shortcut		Multiply the numbers	Divide “is” by “of”
		Divide “is” by “of”	Divide “is” by “%”