

Horizons

Math



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Count each individual answer as a separate point. The total for the test is 81 points. The student should achieve a score of 57 or more points to be ready to begin fifth grade. Be sure to note the areas of weakness even for those who score over 57 points.

1. \$6.02; \$1.19; \$7.89; \$2.37; \$5.18

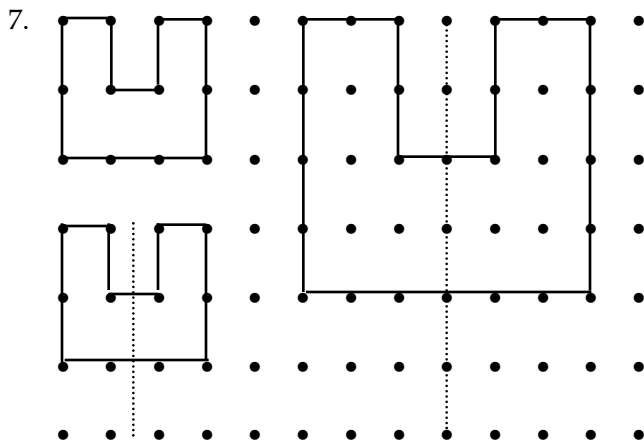
2. 70; 90; 10; 20; 40

3. Tami

4. 1. j
2. i
3. b
4. h
5. m
6. g
7. c
8. l
9. d
10. a
11. k
12. o
13. e
14. f
15. n

5. 1. $\angle RXS, \angle XSQ$
2. $\angle RXQ, \angle RXP$
3. \vec{PQ} and \vec{AB}
4. \vec{AB} and \vec{CD} or \vec{PQ} and \vec{RX}

6. 1. Circle X
2. 2 cm
3. 2 cm
4. CD
5. 8 cm



8. Figure A – perimeter 60 in; area 200 in²
Figure B – 24 cm³

9. 27; 42; 48; 81

10. $\frac{3}{5} = 1$; $\frac{4}{10} = \frac{2}{5}$; $\frac{6}{12} = \frac{1}{2}$
 $\frac{7}{7}$; $\frac{13}{14}$; $\frac{13}{9} = 1\frac{4}{9}$

11. $\frac{7}{8} = \frac{1}{2}$; $\frac{10}{15} = \frac{2}{3}$; $\frac{8}{10} = \frac{4}{5}$
 $\frac{9}{12} = \frac{3}{4}$; $\frac{7}{12} = \frac{3}{4}$; $\frac{11}{15}$

12. $8\% = 8\frac{1}{2}$; $28\frac{5}{7}$; $\frac{3}{6} = \frac{1}{2}$;
 $10\frac{1}{12} = 10\frac{1}{3}$; 16

13. > = < =

14. 53.244; 698.022; 1.132; 6.82

15. 89.0; 7,889
0.587; 85,400
656,000; 700.1

Lesson 1



Concepts:

Addition, addition properties, addition terms, fractions, geometric terms, place value

Objectives:

1. The student will be able to write the names of the addition terms.
2. The student will be able to apply the addition properties to mathematical statements.
3. The student will be able to add fractions with common denominators and rename in lowest terms.
4. Given pictorial representations, the student will be able to identify lines that are parallel, intersecting, and perpendicular.
5. The student will be able to arrange numbers to find the largest decimal possible.

Teaching Tips:

Give the students addition drill sheets until they can add problems quickly.

Materials, Supplies, and Equipment:

1. Counters, beans, or anything that can be grouped
2. Chart paper and markers
3. *Worksheet 1*

Activities:

1. After reviewing the addition terms, write each of the addition properties on the board. Challenge the students to prove the properties are true using counters. Demonstrate the Order Property of Addition.
 $4 + 6 = 10$ $6 + 4 = 10$
 $\star\star\star\star + \star\star\star\star\star\star = 10$ $\star\star\star\star\star\star + \star\star\star\star = 10$
2. The students might prove the Zero Property of Addition as follows:
 $8 + 0 = 8$
 $\star\star\star\star\star\star\star\star + (\text{no counters}) = 8$
3. The students might prove the Grouping Property of Addition as follows:
 $(5 + 2) + 1 = 8$ $5 + (2 + 1) = 8$
 $(\star\star\star\star\star + \star\star) + \star = 8$ $\star\star\star\star\star + (\star\star + \star) = 8$
 $7 + 1 = 8$ $5 + 3 = 8$
4. Have the students restate the addition properties in their own words and write them on the chart paper.
5. The students should be able to complete **Lesson 1-Explanation** and **Lesson 1-Practice** independently.
6. **Lessons 1-10** review many of the skills covered in previous *Horizons Math* workbooks. Any students new to the *Horizons Math* program can be helped through these review exercises by discussing the **Explanations** for these problems that appear later in the student book. For example, an explanation for the geometry terms reviewed in **Lesson 1** can be found in **Lesson 72 Explanation**.

Those who are wise will shine like the brightness of the heavens, and those who lead many to righteousness, like the stars for ever and ever.

Daniel 12:3

1 Complete the place value chart.

	Billions			Millions			Thousands			Units		
	hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	ones
43,702,000,120		4	3	7	0	2	0	0	0	1	2	0
6,750,100												
300,008,946												
250,665,000,000												
7,000,000,000												
600,200,800,100												
625,480,750												
3,500,000,000												
525,000,000,525												
72,000,000,000												
450,000,608												
						4	4	2	8	0	0	0
			2	8	3	0	0	0	0	0	0	0
				2	7	5	0	0	0	0	8	0
		1	0	2	1	6	5	0	0	0	2	3
			4	9	5	2	0	0	5	0	0	0
				5	3	7	0	0	6	5	0	0
	4	2	8	0	0	0	0	0	0	0	0	0
		1	7	5	0	0	0	0	0	0	0	0
	2	5	6	4	3	3	5	2	5	7	8	1
		9	0	0	0	0	5	0	0	0	0	0

1

Correct the mismatched labels.

Hint: Not all of the labels are mismatched!

$$\begin{array}{rcccl} 25 & + & 14 & = & 39 \\ \text{Addend} & & \text{Sum} & & \text{Addend} \end{array}$$

$$\begin{array}{rcccl} 98 & - & 20 & = & 78 \\ \text{Subtrahend} & & \text{Minuend} & & \text{Difference} \end{array}$$

$$100 - 0 = 100 \qquad 15 - 0 = 15$$

Order Property of Subtraction

$$4 \times 5 = 20 \qquad 5 \times 4 = 20$$

Order Property of Multiplication

$$9 \times 8 = 72 \qquad 72 \div 8 = 9$$

Division "Undoes" Multiplication

$$(9 \times 9) \times 1 = 81 \qquad 9 \times (9 \times 1) = 81$$







Order Property of Division

2

Solve.

$$21 - (3 \times 4) = \underline{\hspace{2cm}} \qquad 15 + (50 \div 2) = \underline{\hspace{2cm}} \qquad (64 \div 8) - 3 = \underline{\hspace{2cm}}$$

$$8 \times (4 + 10) = \underline{\hspace{2cm}} \qquad (19 - 4) + 7 = \underline{\hspace{2cm}} \qquad (49 \div 7) \times 3 = \underline{\hspace{2cm}}$$

- 5. Isosceles - i. 
- 6. Pentagon - d. 
- 7. Hexagon - b. 
- 8. Chord - f. 
- 9. Octagon - g. 
- 10. Prism - a. 

2. 1. 18 cm^2
 2. 12 cm^2
 3. Front $\frac{18 \text{ cm}^2}{2} \times 2 = 36 \text{ cm}^2$
 Top $\frac{24 \text{ cm}^2}{2} \times 2 = 48 \text{ cm}^2$
 Side $\frac{12 \text{ cm}^2}{2} \times 2 = 24 \text{ cm}^2$
 Total 108 cm^2

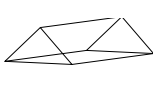


3. $\frac{15}{16}$ $2\frac{5}{8}$ $6\frac{8}{9}$ $14\frac{17}{24}$
 $20\frac{26}{21} = 21\frac{5}{21}$ $17\frac{10}{8} = 18\frac{2}{8} = 18\frac{1}{4}$
 $102\frac{67}{40} = 103\frac{27}{40}$
 $128\frac{12}{9} = 129\frac{3}{9} = 129\frac{1}{3}$

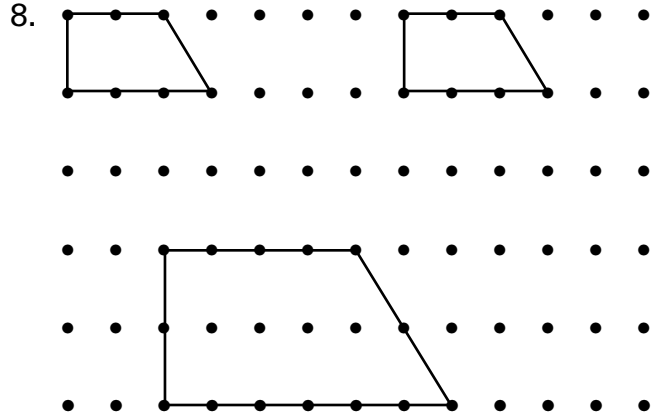
4. 21 9 20 36

5. $\frac{12}{35}$ $\frac{25}{96}$
 $\frac{28}{27} = 1\frac{1}{27}$ $\frac{55}{8} = 6\frac{7}{8}$
 $\frac{7}{12}$ $\frac{6}{5} = 1\frac{1}{5}$
 $\frac{18}{2} = 9$ $\frac{4}{45}$

6. 1. \overline{XY}
 2. \overline{AB}
 3. \overline{TX} or \overline{TY}
 4. 3 cm

7.

			
Name of Figure	Triangular prism	Hexagonal pyramid	cube
Faces	5	7	6
Edges	9	12	12
Vertices	6	7	8



Quarter Test 4

1.

Fence posts	5	10	15	20	25	30
Fence row	1	2	3	4	5	6

Water	1	2	3	4	5	6
Dough Mix	3	6	9	12	15	18

2. >

<

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=

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3. 17 136 101 9,002 577
 143.11 14.92 1486.81 104.11 5.44
 53.4 2.43 0.66 54.18 30.66

4. 29.13 116.11 31.56 24.475

5. $\frac{3}{20}$ $\frac{1}{5}$ $\frac{3}{4}$
 $\frac{1}{10}$ $\frac{3}{10}$ $\frac{1}{2}$