



Student Worksheet Packet

Horizons

Mathematics 6

This packet contains the worksheets necessary for one student in the *Horizons Mathematics 6* curriculum. It is made available for anyone not being able to or not wanting to use the reproducible masters provided in the Teacher's Guide. Worksheets used more than once will need to be photocopied for that purpose or you can have the student work the problems and write answers on another sheet of paper.

There is approximately one worksheet every few lessons. Enclosed you will find a list of all worksheets and the lessons with which they are associated.

Worksheets provide additional or remedial work for student(s). Some worksheets become manipulatives for the student(s).

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Where To Use Mathematics Worksheets

This chart shows where worksheets may be used for *Horizons Math 6*.

No.	Concept	Lessons Where Worksheets Are Used
1	Numeration to the trillions	1
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39	Round the quotient	76
40	Divide by a decimal	77

DEFINITION

Expanded form is writing a number to illustrate each place value.

Model: In expanded form, 527 is written: $500 + 20 + 7$

Check the following chart.

TRILLIONS			BILLIONS			MILLIONS			THOUSANDS			UNITS						
hund- reds	tens	ones	hund- reds	tens	ones	hund- reds	tens	ones	hund- reds	tens	ones	hund- reds	tens	one				
0	0	0	,	0	0	0	,	0	0	0	,	0	0	0	,	0	0	0

- ① Write 726 in expanded form. _____
- ② Write the number equal to $20,000 + 7,000 + 500 + 20 + 9$. _____

LARGE NUMBERS

A digit followed by six zeros is a multiple of a million. What about a number with nine zeros or twelve zeros? The numbers are multiples of a *billion* or *trillion* respectively.

Model: Write the number that begins with the digit 6 followed by eight zeros, and write its name.

600,000,000 is six hundred million.

- ③ Write the number that starts with the digit 8 followed by eight zeros, and write its name.
 - a. _____
 - b. _____
- ④ Write the number that starts with the digit 5 followed by nine zeros, and write its name.
 - a. _____
 - b. _____
- ⑤ Write six billion in numerals. _____
- ⑥ Write four trillion in numerals. _____

PLACE VALUE

The location of the decimal point is very important. This place value chart will help you choose the correct placement of the decimal point.

MILLIONS	HUNDRED THOUSAND	TEN THOUSAND	THOUSANDS	HUNDREDS	TENS	ONES (UNITS)		TENTHS	HUNDREDTHS	THOUSANDTHS	TEN THOUSANDTHS	HUNDRED THOUSANDTHS	MILLIONTHS
○	○	○	○	○	○	○	●	○	○	○	○	○	○

Model: Show the location of the decimal point in the fraction $\frac{213}{1,000}$.

On the chart, $\frac{1}{1,000}$ is the third place to the right of

the decimal point, so $\frac{213}{1,000} = 0.213$.

- ① Show the location of the decimal point in the fraction $\frac{145}{1,000}$. _____
- ② Show the location of the decimal point in the fraction $\frac{456}{10,000}$. _____
- ③ Show the location of the decimal point in the fraction $5 \frac{45}{100}$. _____
- ④ Show the location of the decimal point in the fraction $127 \frac{9}{1,000}$.

- ⑤ State fifty-six and fourteen hundredths in numerals. _____
- ⑥ Show the location of the decimal point in the fraction $\frac{35}{1,000}$. _____
- ⑦ The decimal sixty-three and twenty-nine hundredths in numerals is _____.
a. 63.029 b. 63.29 c. 6.329 d. 630.29
- ⑧ The correct location of the decimal point in the fraction $\frac{327}{1,000}$ is _____.
a. 0.327 b. 3.27 c. 0.0327 d. 32.7
- ⑨ On the number line the starting point is _____.
a. zero b. one c. any place d. one hundred
- ⑩ The correct location of the decimal point in the fraction $\frac{3}{10,000}$ is _____.
a. 0.3 b. 0.03 c. 0.003 d. 0.0003

Numbers of any value can be rounded to a given place.

Round 27 to tens' place.

- Find the digit in tens' place. (2) 27 rounds to 30
 Look at the digit to the right of 2. (7)
 If the digit is 5 or more, round to the next higher tens' number. (30)
 If the digit is less than 5, round to the lower tens' number. (20)

① Round to the nearest tens' place.

37 _____ 45 _____ 63 _____ 98 _____ 51 _____ 12 _____

Round 395,467 to one thousands' place.

- Find the digit in one thousands' place. (5) 395,467 rounds to 395,000
 Look at the digit to the right of the 5. (4)
 If the digit is 5 or more, round to the next higher thousands' number. (6,000)
 If the digit is less than 5, round to the lower thousands' number. (5,000)

② Round to the nearest ...

- a. hundreds' place. 1,574 _____ 778,386 _____ 16,360 _____
 b. thousands' place. 6,127 _____ 48,963 _____ 312,615 _____
 c. ten thousands' place. 104,262 _____ 4,851,243 _____ 56,921 _____

We can round a number when 9 is the digit to be rounded.

- Round 24,976 to hundreds' place. 24,976 rounds to 25,000
 9 is in hundreds' place. The digit to the right is 7.
 Round 900 to the next higher hundreds. (1,000)
 Write a zero in hundreds' place. Change 4,000 to 5,000.

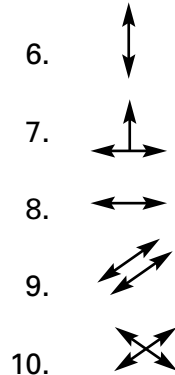
③ Round to the nearest ...

- a. one thousands' place.
 549,848 _____ 19,672 _____ 1,329,032 _____
- b. one millions' place.
 29,730,114 _____ 9,320,647 _____ 549,842,149 _____
- c. ten millions' place.
 49,267,849 _____ 989,360,543 _____ 29,367,851 _____
- d. one billions' place
 569,876,054,293 _____ 29,587,313,263 _____

Geometry begins with lines and how lines relate to each other.

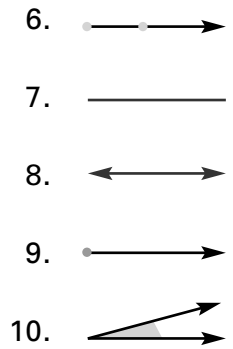
① Match the name of the line to the definition and to the drawing.

- | | |
|------------------------|--|
| a. _____ vertical | 1. lines that cross each other |
| b. _____ parallel | 2. lines straight up and down |
| c. _____ horizontal | 3. lines the same distance apart along their entire length |
| d. _____ intersecting | 4. lines that form 90° angles where they meet |
| e. _____ perpendicular | 5. lines parallel to the horizon |



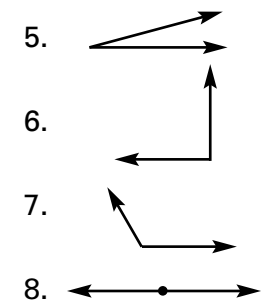
② Match the name to the definition and to the drawing.

- | | |
|-----------------------|--|
| a. _____ line | 1. has one end point |
| b. _____ line segment | 2. marks the beginning and ending |
| c. _____ end point | 3. distance between two rays with a common end point |
| d. _____ ray | 4. has no beginning and no end |
| e. _____ angle | 5. has a beginning and end |



③ Match the name of the angle to the definition and to the drawing.

- | | |
|-------------------|---|
| a. _____ right | 1. equal to 180° |
| b. _____ acute | 2. greater than 90°, but less than 180° |
| c. _____ obtuse | 3. less than 90° |
| d. _____ straight | 4. equal to 90° |



④ Identify each measurement on the protractor. Describe as right, acute, obtuse, or straight.

- A _____
- B _____
- C _____
- D _____
- E _____
- F _____

