Contents

Readiness for Level 1

Pre-requisites for the Level 1:

- Medium level of kindergarten.
- Ability to hold a pencil to draw shapes on a paper.
- Can steadily draw an outline of a figure.
- Practice with coloring books.
- Lots of reading of picture books.
- Vocabulary development to understand common words:
    - Bigger vs. Smaller
    - Longer vs. Shorter
    - Types of animals
    - Types of fruits and vegetables
    - Modes of transportation
    - Colors
- Count objects up to 10 with or without using fingers.
- Write numbers up to 20.
- Can perform activities such as
    - Bringing a certain quantity of fruits from a basket *("Can you please bring eight oranges from the basket?"*)
    - Arrange a group of 4 or 5 ribbons in the order of shortest to the longest or vice versa.
    - Arrange a group of 4 or 5 carrots in the order of smallest to the biggest or vice versa.
    - When a mixed pile of fruits and vegetables given then an ability to sort the items in the groups of fruits vs. vegetables or specific type of fruits/vegetables or grouping by color etc.
    - When a group of toys are given then an ability to sort them in categories on the basis of color or modes of transportation etc.
    - Ability to reasonably organize the study area in terms of storing books, toys, stationary items etc.

Notes:

Readiness for Level 2

The placement can be evaluated with a prior understanding of the child's abilities (macro-assessment) and/or by assigning a test (micro-assessment).
If you have any questions, please email the author with scans/photos of the assignment pages for a free, no obligation consultation.

Macro Assessment:

- Understand numbers up to 100
- Counting in the group of 10s, 5s and 1s.
- Good command over addition/subtraction facts within 0-10.
- Some command over addition/subtraction facts within 0-20.
- Good ability of skip counting forward/backward by 10.
- Some ability of skip counting forward by 2/3/4/5/6/7/8/9.
- Compose/Decompose numbers in terms of tens and ones
- Write numerals if numbers are given in words
- Comparing numbers
- Simple one step word problems with/without diagrams.

Notes:

Micro Assessment: Maximum points # 60 (see the next page)
Points 49 to 60: can start with the Level 2.
Points 31 to 48: needs to fill in the gaps with a partial coverage of Level 1.
Points 0 to 30: needs to start at the Level 1.

Readiness for level 2 – Micro Assessment

To the Teacher: Total points for this test are 60.

[5 Points]

Count backwards from 20 to 1:

20 , 19 , 18 , …. , …. , …. , …. , …. , …. , …. ,
…. , …. , …. , …. , …. , …. , …. , …. , …. , ….

Count forward by 1:

76 , 77 , 78 , …. , …. , …. , …. , …. , …. , …. ,
…. , …. , …. , …. , …. , …. , …. , ….

Skip count by 2:

2 , 4 , 6 , …. , …. , …. , …. , …. , …. , …. ,
…. , …. , …. , …. , …. , …. , …. , …. , …. , ….

Skip count by 5:

5 , 10 , 15 , …. , …. , …. , …. , …. , …. , ….
…. , …. , …. , …. , …. , …. , …. , …. , …. , ….

Skip count by 10:

9 , 19 , 29 , …. , …. , …. , …. , …. , …. , ….

[8 Points]

4 + 8 = …..	13 – 7 = …..	16 – 8 = …..
7 + 6 = …..	12 – 6 = …..	15 – 9 = …..
6 + 5 = …..	11 – 4 = …..	

[2 Points]

90 + 9 = …… 60 + 8 = ……

[4 Points]

77 + 1 = …… 77 + 10 = ……

77 – 1 = …… 77 – 10 = ……

[4 Points]

Complete the addition/subtraction equations:

40 + … = 47 … + 6 = 96

50 + … = 55 … + 9 = 79

[4 Points]

Write numerals:

Forty nine: …… Sixty nine: ……

Ninety four: …… Sixteen: ……

[6 Points]

Compare:

Notations → *smaller than* : < , *bigger than* : >

75 ◯ 46 54 ◯ 45 89 ◯ 98

76 ◯ 60 48 ◯ 58 70 ◯ 55

[3 Points]

….. ¢

….. ¢

….. ¢

[6 Points]

Continue the pattern by skip counting:

3 , 6 , 9 , …. , …. , …. , …. , …. , …. , ….

4 , 8 , 12 , …. , …. , …. , …. , …. , …. , ….

8 , 16 , 24 , …. , …. , ….

Word problems – Please see the next page.

[2 Points]

Kelly has 4¢ and Lisa has 4¢.

How much money do they have altogether?

They have ..... ¢ altogether.

[2 Points]

Two bags have 9¢ altogether.
The first bag has 3¢.

How much money does the second bag have?

The second bag has ..... ¢.

[2 Points]

Jerry had 8¢.
He spent 5¢.

How much money does he have left?

He has ..... ¢ left.

[2 Points]

Joe had 8¢.
His friend gave him 2¢.

How much money does he have now?

He has ..... ¢ now.

[2 Points]

Steve and Matt have eight units long stick candy altogether. Steve has three units long stick candy.

How much stick candy does Matt have?

Matt has ..... units long stick candy.

[2 Points]

Mark has three units long string.
Joe has six units long string.

How much string do they have altogether?

They have ..... units long string altogether.

[2 Points]

Linda had three units long stick candy. Her mom gave her four units of more stick candy.

How much stick candy does she have now?

She has ..... units long stick candy now.

[2 Points]

Tom had ten units long stick candy.
He ate eight units long candy.

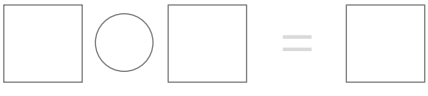
How much stick candy does he have left?

He has ..... units long stick candy left.

[2 Points]

There are ten children at the bus depot.
Four children are outside the bus.

How many children are inside the bus?



..... children are inside the bus.

Readiness for Level 3

The placement can be evaluated with a prior understanding of the child's abilities (macro-assessment) and/or by assigning a test (micro-assessment).
If you have any questions, please email the author with scans/photos of the assignment pages for a free, no obligation consultation.

Macro Assessment:

- Understand numbers up to 1000.
- Long addition/subtraction with regrouping.
- Counting in the group of 100s, 20s, 25s, 10s, 5s and 1s.
- Good command over addition/subtraction facts within 0-20.
- Some command over single digit multiplication/division.
- Good ability of skip counting forward/backward by 100 or 10.
- Compose/Decompose numbers in terms of their place values.
- Write numerals if numbers are given in words.
- Comparing numbers, Rounding numbers.
- Telling time of a clock.
- One step word problems involving one of the four operations.

Notes:

Micro Assessment: Maximum points # 60 (see the next page)

Points 49 to 60: can start with the Level 3.
Points 31 to 48: needs to fill in the gaps with a partial coverage of Level 2.
Points 0 to 30: needs to take the placement test of a previous level.

Readiness for level 3 – Micro Assessment

To the Teacher: Total points for this test are 60.

[14 Points i.e. 2 points for each problem]

Perform long additions or subtractions:

546 + 262 | 753 + 76 | 734 – 258 | 373 + 89

815 – 257 | 873 – 81 | 667 – 79

[2 Points]

300 + 6 = ... 400 + 80 = ...

[3 Points]

Compare: Notations → *smaller than* : < , *bigger than* : >

747 ◯ 538 780 ◯ 708 578 ◯ 587

[3 Points]

Round to hundreds: 318 ≈ .....

Round to tens: 381 ≈ ..... , Round to hundreds: 381 ≈ .....

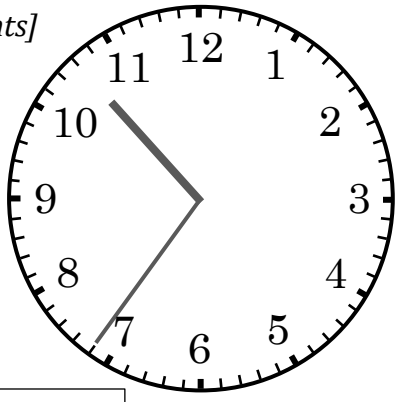
[1 Point]

$....

[1 Point]

.... ¢

[4 Points]



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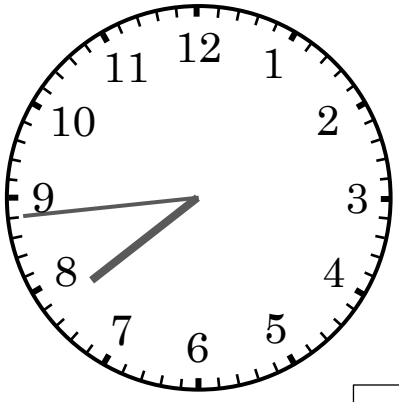

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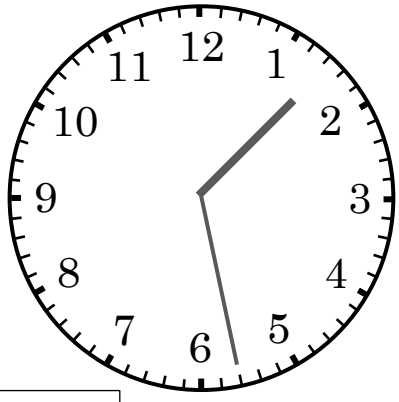

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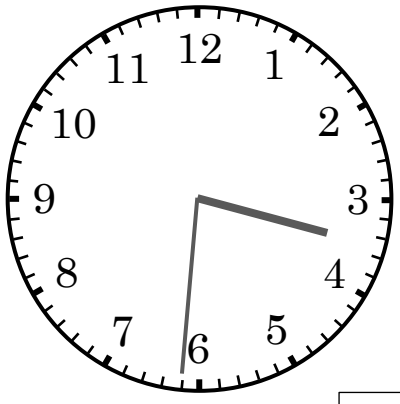


:

[2 Points]

Giraffe is twenty seven units tall.

Deer is nine units tall.

How many times tall is the giraffe compared to the deer?

….. ◯ ….. = ……

Giraffe is ….times as tall as the deer.

[2 Points]

Deer is six units tall.

Giraffe is three times as tall as the deer.

How tall is the giraffe?

….. ◯ ….. = ……

Giraffe is ….units tall.

[2 Points]

Shelly made five sandwiches.
She used four pickles to make each sandwich.

How many pickles did she use altogether?

…… ◯ …… = ……

She used …… pickles altogether.

[2 Points]

Bob used twenty four pepperonis for baking few pizzas.
He used six pepperonis for each pizza.

How many pizzas did he bake?

..... ◯ ..... = ...

He baked ..... pizzas.

[2 Points]

Tom picks eight pumpkins each day.
How many pumpkins would he pick in five days?

..... ◯ ..... = ...

He would pick ..... pumpkins altogether.

[2 Points]

Tom picked twenty eight pumpkins in four days.
If he picked the same number of pumpkins each day, how many pumpkins did he pick each day?

..... ◯ ..... = ...

He picked ..... pumpkins each day.

[2 Points]

There are two fish bowls.
First fish bowl has seven fish while the second fish bowl has eight fish.
How many fish are there altogether?

..... ◯ ..... = ...

..... fish are there altogether.

[2 Points]

There are seven fish bowls.
If each fish bowl has six fish, how many fish do all bowls have altogether?

..... ◯ ..... = ...

All fish bowls have ..... fish altogether.

[2 Points]

Sixteen fish are divided unequally in two fish bowls.
First bowl has ten fish.
How many fish does the second fish bowl have?

..... ◯ ..... = ...

The second fish bowl has ..... fish.

[2 Points]

Bob and Tim have nineteen units string altogether.
Bob has six units string.
How much string does Tim have?

..... ◯ ..... = ...

Tim has ..... units long string.

[2 Points]

Matt and Tom received eighteen units candy altogether.
Matt received seven units candy.
How much candy did Tom receive?

..... ◯ ..... = ...

Tom received ..... units candy.

[2 Points]

Forty units candy was equally shared among the students in the class.
Each student received eight units candy.
How many students are there in the class?

..... ◯ ..... = ...

There are ..... students in the class.

[2 Points]

Ben has twenty units string.

Sue has five units string.

How many times long string does Ben have compared to Sue?

…… ◯ …… = …….

Ben has ….. times as long string as Sue.

[2 Points]

Ben has twenty units string.

Sue has five units string.

How much longer string does Ben have than Sue?

…… ◯ …… = …….

Ben has ….. units longer string than Sue.

[2 Points]

Jeff has ten marbles.

Matt has five times as many marbles as Jeff.

How many marbles does Matt have?

…… ◯ …… = …….

Matt has …… marbles.

[2 Points]

Lisa has fifteen apples.

Tom has three apples

How many times apples does Lisa have compared to Tom?

…… ◯ …… = …….

Lisa has ….. times as many apples as Tom

Readiness for Level 4

The placement can be evaluated with a prior understanding of the child's abilities (macro-assessment) and/or by assigning a test (micro-assessment).
If you have any questions, please email the author with scans/photos of the assignment pages for a free, no obligation consultation.

Macro Assessment:

- Understand numbers up to 1,000,000.
- Long addition/subtraction/multiplication/division.
- Interpret long multiplication in terms of area.
- Calculations with time/calendar.
- Combined operations.
- Command over fact families with all four operations.
- Good ability of skip counting in 100s, 20s, 25s, 10s, 5s and 1s.
- Compose/Decompose numbers in terms of their place values.
- Write numerals if numbers are given in words.
- Comparing numbers, Rounding numbers.
- Multi-step word problems involving any of the four operations.

Notes:

Micro Assessment: Maximum points # 60 (see the next page)

Points 49 to 60: can start with the Level 4.
Points 31 to 48: needs to fill in the gaps with a partial coverage of the Levels 2 and 3.
Points 0 to 30: needs to take the placement test of a previous level.

Readiness for level 4 – Micro Assessment

To the Teacher: Total points for this test are 60.

[2 Points]

Write numerals:

Seventy thousand, six hundred and ten: .....

Ten thousand and eleven: .....

[2 Points] Compare → 31,500 ◯ 35,100 , 4,862 ◯ 4,682

[2 Points]

Round to ten thousands → 10,682 ≈ .....

Round to hundreds → 10,682 ≈ .....

[2 Points]

80,000 + 600 = 80 × 500 =

[4 Points]
Combined operations

30 – (10 – 5) + 2

20 – (3 + 2) × 2

---

50 – (50 – 10) + 20

30 – (3 + 3) × 5

[20 Points i.e. 2 points for each problem] Long operations

63 × 4

35 × 90

33 × 22

804 – 67

97 ÷ 3

76 × 3

63 × 40

41 × 22

503 – 76

96 ÷ 4

[2 Points]

The bus was supposed to leave at 9:30 AM but it left at 11:20 AM. How much late did the bus leave?

The bus was late by .....

[2 Points]

Tom arranged his toy cars in four rows with eight cars in each row.
If he has fourteen red cars and the rest are black cars, how many black cars does he have?

He has ……. black cars.

[2 Points]

There were three queues at the ticket counter with ten, nine and five people respectively. If they move around to have same number of people in each queue, how many people will be in each queue?

There will be …… people in each queue.

[2 Points]

Mary bought ten chili plants for $25, eight tomato plants for $28 and eleven strawberry plants for $22.

How many plants did she buy? What was the total cost?

She bought …… plants for the cost of $.....

[2 Points]

A tomato plant costs $4 and a chili plant costs $3.

What is the total cost of six tomato plants and nine chili plants?

The total cost of all plants is $.....

[2 Points]

One pumpkin weighs 3 kg. If I need at least 52 kg of pumpkins, how many whole pumpkins should I buy?

I need …… pumpkins

Bread sticks:	$2
Small pizza:	$4
Medium pizza:	$6
Large pizza:	$8

[2 Points]

(1) If I have sixty five dollars, how many small pizzas could I buy? …..
How much money will be leftover? …….
How much money is needed to buy one more small pizza? …….

[2 Points]

(2) After buying eight large pizzas, I have six dollars left.
How much money did I have in the beginning? …….

[2 Points]

(3) If I have eighty dollars, how many medium pizzas could I buy? ……
How much money will be leftover? ……..
How much money is needed to buy one more medium pizza? ……..

[4 Points]

84 days are equal to
….weeks and ….days

89 days are equal to
….weeks and ….days

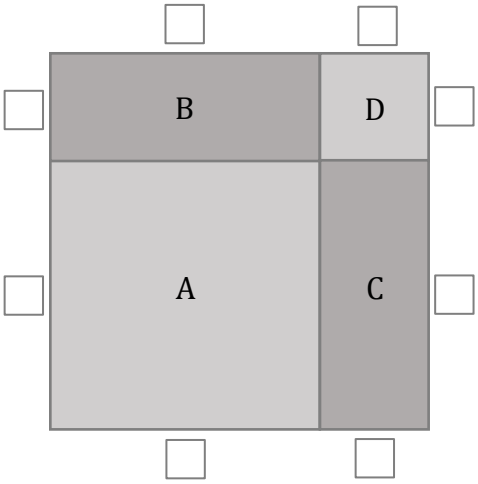
[2 Points]

The plane was supposed to land at 3:10 PM but it landed 1 hr 20 min early. When did the plane land?

The plane landed at …….

[4 Points]

Compute the total area of 13 *unit* × 13 *unit* with long multiplication.



$$\begin{array}{r} 1\ 3 \\ \times\ 1\ 3 \\ \hline \\ +\ \underline{\qquad\quad} \\ \hline \end{array}$$

Area A = …… × …… = …… unit²

Area B = …… × …… = …… unit²

Area C = …… × …… = …… unit²

Area D = …… × …… = …… unit²

Compute the total area by adding four areas

Readiness for Level 5

The placement can be evaluated with a prior understanding of the child's abilities (macro-assessment) and/or by assigning a test (micro-assessment).
Note for children who have completed an equivalent of Level 4 with some other curriculum: Since this curriculum covers fractions/decimals in more detail/depth than other curricula, the author recommends to cover at least part of the Level 4 (depending on gaps in child's knowledge) before proceeding to the Level 5.
If you have any questions, please email the author with scans/photos of the assignment pages for a free, no obligation consultation.

Macro Assessment:

- Fractions, Mixed numbers – Conversion, Expansion/reduction.
- Factors, Prime numbers.
- Addition/Subtraction of fractions with common/unlike denominators.
- Addition/Subtraction of mixed numbers.
- Large whole numbers.
- Decimals – Place values, Composition.
- Words – Numerals for fractions/decimals.
- Comparison/Rounding of decimals.
- Multiplying/Dividing decimals by 10 or 100.
- Word problems.

Notes:

Micro Assessment: Maximum points # 60 (see the next page)

Points 49 to 60: can start with the Level 5.
Points 31 to 48: needs to fill in the gaps with a partial coverage of the previous levels.
Points 0 to 30: needs to take the placement test of a previous level.

Readiness for level 5 – Micro Assessment

To the Teacher:: Total points for this test are 60.

[6 Points] $\frac{17}{3} = \square\frac{\square}{\square}$ $\quad 4\frac{2}{3} = \frac{\square}{\square}$ $\quad \frac{25}{4} = \square\frac{\square}{\square}$

$3\frac{3}{5} = \frac{\square}{\square}$ $\quad \frac{14}{3} = \square\frac{\square}{\square}$ $\quad 5\frac{5}{6} = \frac{\square}{\square}$

[2 Points]

If a mixed number has an improper fraction, convert it to a proper fraction. (Otherwise, leave it as is)

$3\frac{5}{4} =$ $\qquad\qquad$ $2\frac{3}{2} =$

[2 Points] Borrow one to fractions for the mixed numbers below:

$2\frac{1}{3}$

$= \square + 1\frac{\square}{\square}$

$= \square\frac{\square}{\square}$

$3\frac{2}{5}$

[2 Points]

Borrow one from the whole number and write as a mixed number:

$2 = 1\frac{\square}{5}$ $\qquad 4 = \square\frac{\square}{4}$ $\qquad 3 = \square\frac{\square}{3}$

[6 Points]

$3\frac{5}{7} + 1\frac{4}{7}$

$3 - \frac{2}{3}$

Borrowing needed? Yes / No

$4\frac{1}{4} - \frac{3}{4}$

[2 Points]

$\frac{3}{4} = \frac{\square}{12}$ $\frac{5}{6} = \frac{\square}{18}$

[2 Points]

Reduce each fractions to its lowest denominator:

$\frac{6}{12} = \frac{\square}{\square}$ $\frac{6}{8} = \frac{\square}{\square}$

[3 Points]

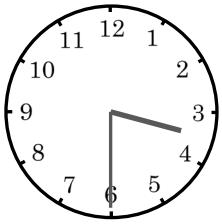
$\frac{3}{4} - \frac{1}{3}$ → Multiples of denominators → ..... ; .....

$= \frac{\square}{\square} - \frac{\square}{\square}$ ← $\frac{\square}{\square} = \frac{\square}{\square}$, $\frac{\square}{\square} = \frac{\square}{\square}$

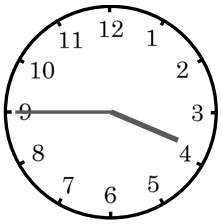
$=$

Type equation here.

[3 Points]

Start □:□ 

..... past .....

End □:□ 

..... till .....

Duration of the activity

→ ..... min OR

→ ..... quarter of an hour

[6 Points]

$10 + 0.05 =$ $4 + 0.2 + 0.08 =$

$0.9 \times 10 =$ $\frac{0.3}{10} =$

$0.76 \times 100 =$ $\frac{74}{100} =$

[2 Points] Compare: 1.3 ◯ 1.15 0.5 ◯ 0.27

[2 Points]

Round to tens → 825.74 ≈ Round to **tenths** → 825.74 ≈

[2 Points]

A truck needs four gallon gasoline to drive forty two miles. What is truck's mileage in *'miles per gallon'*?

Simplify

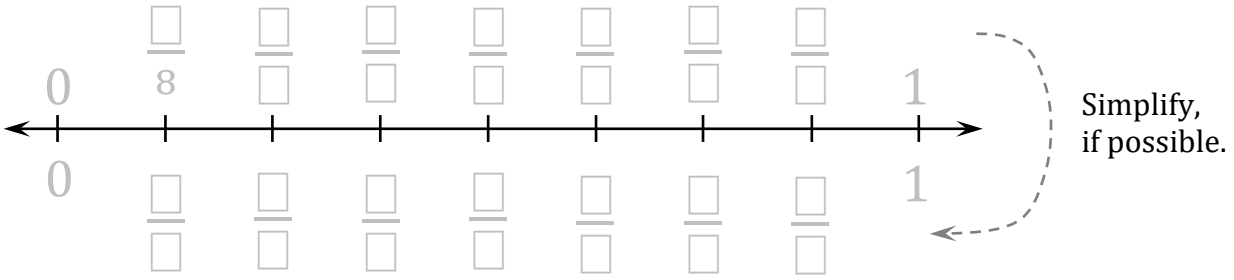
$$\frac{\ldots\ldots\ miles}{\ldots\ldots\ gallons} = \frac{\square}{\square}\ \frac{miles}{gallon} = \square\ \frac{\square}{\square}\ \ \ldots\ldots\ per\ \ldots\ldots$$

[2 Points]

Write as mixed numbers or proper fractions

One and a half: …….. Three quarters: …….

[4 Points]



[2 Points]

Round to tens → 139.42 ≈

Round to **tenths** → 139.42 ≈

[2 Points]

I had 10 gallon milk in the refrigerator. I used 5.6 gallon milk for cooking. Then I bought 4.5 gallon milk from the grocery store. How much milk do I have in the refrigerator now?

I have …… gallon milk in the refrigerator now.

[6 Points]

Population of four states:

Florida:	19,893,297
California:	38,802,500
Texas:	26,956,958
New York:	19,746,227

State with the most population:

State with the least population:

Population of Florida:

Round to the nearest thousand:

Round to the nearest million:

Population of New York:

Round to the nearest thousand:

Round to the nearest million:

[4 Points]

Sam would like to eat $\frac{3}{4}$ of one pizza. Jack would like to eat $\frac{5}{8}$ of one pizza. How much pizza would they like to eat altogether? How many whole pizzas should they order?

$\frac{3}{4} + \frac{5}{8}$ Multiples of denominators ⟶ .....

.....

$= \frac{\square}{\square} + \frac{\square}{\square}$ ⟵ $\frac{\square}{\square} = \frac{\square}{\square}$, $\frac{\square}{\square} = \frac{\square}{\square}$

$= \frac{\square}{\square} = \square\frac{\square}{\square}$ They would like to eat $\square\frac{\square}{\square}$ pizza altogether.

They need to order $\square$ whole pizzas.

Answer Key / Solutions

Readiness for level 2 – Micro Assessment

To the Teacher: Total points for this test are 60.

[5 Points]

Count backwards from 20 to 1:

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

Count forward by 1:

76, 77, 78, 79, 80, 81, 82, 83, 84, 85,
86, 87, 88, 89, 90, 91, 92, 93

Skip count by 2:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20,
22, 24, 26, 28, 30, 32, 34, 36, 38, 40

Skip count by 5:

5, 10, 15, 20, 25, 30, 35, 40, 45, 50
55, 60, 65, 70, 75, 80, 85, 90, 95, 100

Skip count by 10:

9, 19, 29, 39, 49, 59, 69, 79, 89, 99

[8 Points]

4 + 8 = 12 13 – 7 = 6 16 – 8 = 8

7 + 6 = 13 12 – 6 = 6 15 – 9 = 6

6 + 5 = 11 11 – 4 = 7

[2 Points]

90 + 9 = 99 60 + 8 = 68

[4 Points]

77 + 1 = 78 77 + 10 = 87

77 – 1 = 76 77 – 10 = 67

[4 Points]

Complete the addition/subtraction equations:

40 + 7 = 47 90 + 6 = 96

50 + 5 = 55 70 + 9 = 79

[4 Points]

Write numerals:

Forty nine: 49 Sixty nine: 69

Ninety four: 94 Sixteen: 16

[6 Points]

Compare:

Notations → *smaller than* : < , *bigger than* : >

75 > 46 54 > 45 89 < 98

76 > 60 48 < 58 70 > 55

[3 Points]

86 ¢

48 ¢

59 ¢

[6 Points]

Continue the pattern by skip counting:

3, 6, 9, 12, 15, 18, 21, 24, 27, 30

4, 8, 12, 16, 20, 24, 28, 32, 36, 40

8, 16, 24, 32, 40, 48

Word problems – Please see the next page.

[2 Points]

Kelly has 4¢ and Lisa has 4¢.

How much money do they have altogether?

4 + 4 = 8

They have 8 ¢ altogether.

[2 Points]

Two bags have 9¢ altogether.
The first bag has 3¢.

How much money does the second bag have?

9 – 3 = 6

The second bag has 6 ¢.

[2 Points]

Jerry had 8¢.
He spent 5¢.

How much money does he have left?

8 – 5 = 3

He has 3 ¢ left.

[2 Points]

Joe had 8¢.
His friend gave him 2¢.

How much money does he have now?

$8 + 2 = 10$

He has 10 ¢ now.

[2 Points]

Steve and Matt have eight units long stick candy altogether. Steve has three units long stick candy.

How much stick candy does Matt have?

$8 - 3 = 5$

Matt has 5 units long stick candy.

[2 Points]

Mark has three units long string.
Joe has six units long string.

How much string do they have altogether?

$3 + 6 = 9$

They have 9 units long string altogether.

[2 Points]

Linda had three units long stick candy. Her mom gave her four units of more stick candy.

How much stick candy does she have now?

$3 + 4 = 7$

She has 7 units long stick candy now.

[2 Points]

Tom had ten units long stick candy.
He ate eight units long candy.

How much stick candy does he have left?

$10 - 8 = 2$

He has 2 units long stick candy left.

[2 Points]

There are ten children at the bus depot.
Four children are outside the bus.

How many children are inside the bus?

$10 - 4 = 6$

6 children are inside the bus.

Readiness for level 3 – Micro Assessment

To the Teacher: Total points for this test are 60.

[14 Points i.e. 2 points for each problem]

Perform long additions or subtractions:

546 + 262

$$\begin{array}{r} 1 \\ 546 \\ +\ 262 \\ \hline 808 \end{array}$$

753 + 76

$$\begin{array}{r} 1 \\ 753 \\ +\ 76 \\ \hline 829 \end{array}$$

734 – 258

$$\begin{array}{r} {\scriptstyle 12} \\ 6\ \not{2}\ 14 \\ \not{7}\not{3}\not{4} \\ -\ 258 \\ \hline 476 \end{array}$$

373 + 89

$$\begin{array}{r} 1\ 1 \\ 373 \\ +\ 89 \\ \hline 462 \end{array}$$

815 – 257

$$\begin{array}{r} {\scriptstyle 10} \\ 7\ \not{0}\ 15 \\ \not{8}\not{1}\not{5} \\ -\ 257 \\ \hline 558 \end{array}$$

873 – 81

$$\begin{array}{r} 7\ 17 \\ \not{8}\not{7}\not{3} \\ -\ 81 \\ \hline 792 \end{array}$$

667 – 79

$$\begin{array}{r} {\scriptstyle 15} \\ 5\ \not{5}\ 17 \\ \not{6}\not{6}\not{7} \\ -\ 79 \\ \hline 588 \end{array}$$

[2 Points]

300 + 6 = 306 400 + 80 = 480

[3 Points]

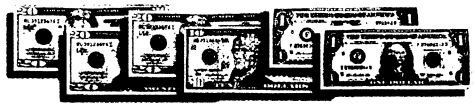
Compare: Notations → *smaller than* : < , *bigger than* : >

747 > 538 780 > 708 578 < 587

[3 Points]

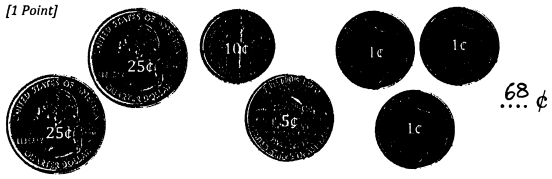
Round to tens: 381 ≈ 380 , Round to hundreds: 318 ≈ 300 , Round to hundreds: 381 ≈ 400

[1 Point]



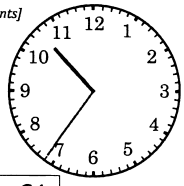
$.72

[1 Point]

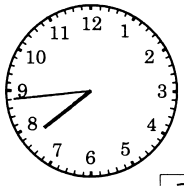


68 ¢

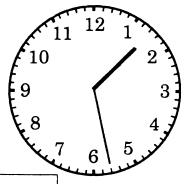
[4 Points]



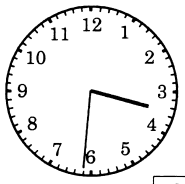
10 : 36



7 : 44



1 : 28



3 : 31

[2 Points]

Giraffe is twenty seven units tall.

Deer is nine units tall.

How many times tall is the giraffe compared to the deer?

27 ÷ 9 = 3

Giraffe is 3 times as tall as the deer.

[2 Points]

Deer is six units tall.

Giraffe is three times as tall as the deer.

How tall is the giraffe?

6 × 3 = 18

Giraffe is 18 units tall.

[2 Points]

Shelly made five sandwiches.
She used four pickles to make each sandwich.

How many pickles did she use altogether?

5 × 4 = 20

She used 20 pickles altogether.

[2 Points]

Bob used twenty four pepperonis for baking few pizzas.
He used six pepperonis for each pizza.

How many pizzas did he bake?

24 ÷ 6 = 4

He baked 4 pizzas.

[2 Points]

Tom picks eight pumpkins each day.
How many pumpkins would he pick in five days?

8 × 5 = 40

He would pick 40 pumpkins altogether.

[2 Points]

Tom picked twenty eight pumpkins in four days.
If he picked the same number of pumpkins each day, how many pumpkins did he pick each day?

28 ÷ 4 = 7

He picked 7 pumpkins each day.

[2 Points]

There are two fish bowls.
First fish bowl has seven fish while the second fish bowl has eight fish.
How many fish are there altogether?

7 + 8 = 15

15 fish are there altogether.

[2 Points]

There are seven fish bowls.
If each fish bowl has six fish, how many fish do all bowls have altogether?

7 × 6 = 42

All fish bowls have ..... fish altogether.

[2 Points]
Sixteen fish are divided unequally in two fish bowls.
First bowl has ten fish.
How many fish does the second fish bowl have?

16 − 10 = 6

The second fish bowl has 6 fish.

[2 Points]

Bob and Tim have nineteen units string altogether.
Bob has six units string.
How much string does Tim have?

19 − 6 = 13

Tim has 13 units long string.

[2 Points]
Matt and Tom received eighteen units candy altogether.
Matt received seven units candy.
How much candy did Tom receive?

18 − 7 = 11

Tom received 11 units candy.

[2 Points]

Forty units candy was equally shared among the students in the class.
Each student received eight units candy.
How many students are there in the class?

40 ÷ 8 = 5

There are 5 students in the class.

[2 Points]

Ben has twenty units string.

Sue has five units string.

How many times long string does Ben have compared to Sue?

20 ÷ 5 = 4

Ben has 4 times as long string as Sue.

[2 Points]

Ben has twenty units string.

Sue has five units string.

How much longer string does Ben have than Sue?

20 − 5 = 15

Ben has 15 units longer string than Sue.

[2 Points]

Jeff has ten marbles.

Matt has five times as many marbles as Jeff.

How many marbles does Matt have?

10 × 5 = 50

Matt has 50 marbles.

[2 Points]
Lisa has fifteen apples.

Tom has three apples

How many times apples does Lisa have compared to Tom?

15 ÷ 3 = 5

Lisa has 5 times as many apples as Tom

Readiness for level 4 – Micro Assessment

To the Teacher: Total points for this test are 80.

[2 Points]
Write numerals:

Seventy thousand, six hundred and ten: 70,610

Ten thousand and eleven: 10,011

[2 Points] Compare → 31,500 < 35,100 , 4,862 > 4,682

[2 Points]

Round to ten thousands → 10,682 ≈ 10,000

Round to hundreds → 10,682 ≈ 10,700

[2 Points]

80,000 + 600 = 80,600 80 × 500 = 40,000

[4 Points] Combined operations

30 – (10 – 5) + 2
= 30 – 5 + 2
= 25 + 2
= 27

20 – (3 + 2) × 2
= 20 – 5 × 2
= 20 – 10
= 10

---

50 – (50 – 10) + 20
= 50 – 40 + 20
= 10 + 20
= 30

30 – (3 + 3) × 5
= 30 – 6 × 5
= 30 – 30
= 0

[20 Points i.e. 2 points for each problem] Long operations

63 × 4 = 252

35 × 90 = 3150

33 × 22 = 726

804 – 67 = 737

97 ÷ 3 = 32 r 1

---

76 × 3 = 228

63 × 40 = 2520

41 × 22 = 902

503 – 76 = 427

96 ÷ 4 = 24

[2 Points]

The bus was supposed to leave at 9:30 AM but it left at 11:20 AM. How much late did the bus leave?

9:30 —30 min→ 10:00 —1 hr→ 11:00 —20 min→ 11:20

The bus was late by 1 hr, 50 min.

[2 Points]

Tom arranged his toy cars in four rows with eight cars in each row.
If he has fourteen red cars and the rest are black cars, how many black cars does he have?

Total number of cars = 4 × 8 = 32

Black cars = 32 – 14 = 18

He has 18 black cars.

[2 Points]

There were three queues at the ticket counter with ten, nine and five people respectively. If they move around to have same number of people in each queue, how many people will be in each queue?

Total number of people = 10 + 9 + 5 = 24

Number of people in each row = 24 ÷ 3 = 8

There will be 8 people in each queue.

[2 Points]

Mary bought ten chili plants for $25, eight tomato plants for $28 and eleven strawberry plants for $22.
How many plants did she buy? What was the total cost?

10 + 8 + 11 = 29

25 + 28 + 22 = 75

She bought 29 plants for the cost of $75

[2 Points]

A tomato plant costs $4 and a chili plant costs $3.
What is the total cost of six tomato plants and nine chili plants?

Tomato plants: 4 × 6 = 24
Chili plants: 3 × 9 = 27

24 + 27 = 51

The total cost of all plants is $51

[2 Points]

One pumpkin weighs 3 kg. If I need at least 52 kg of pumpkins, how many whole pumpkins should I buy?

52 ÷ 3 = 17 r 1

I need 18 pumpkins

Bread sticks:	$2
Small pizza:	$4
Medium pizza:	$6
Large pizza:	$8

[2 Points]

(1) If I have sixty five dollars, how many small pizzas could I buy? 16
How much money will be leftover? #1
How much money is needed to buy one more small pizza? #3

$$\begin{array}{r} 16 \\ 4\overline{)65} \\ -4 \\ \hline 25 \\ -24 \\ \hline 1 \end{array}$$ ← Leftover money

[2 Points]

(2) After buying eight large pizzas, I have six dollars left.
How much money did I have in the beginning? $70

$8 \times 8 = 64$

$$\begin{array}{r} 1 \\ 64 \\ +\ 6 \\ \hline 70 \end{array}$$

[2 Points]

(3) If I have eighty dollars, how many medium pizzas could I buy? 13
How much money will be leftover? $2
How much money is needed to buy one more medium pizza? #4

$$\begin{array}{r} 13 \\ 6\overline{)80} \\ -6 \\ \hline 20 \\ -18 \\ \hline 2 \end{array}$$

[4 Points]

84 days are equal to 12 weeks and 0 days

$$\begin{array}{r} 12 \\ 7\overline{)84} \\ -7 \\ \hline 14 \\ -14 \\ \hline 00 \end{array}$$

89 days are equal to 12 weeks and 5 days

$$\begin{array}{r} 12 \\ 7\overline{)89} \\ -7 \\ \hline 19 \\ -14 \\ \hline 5 \end{array}$$

[2 Points]

The plane was supposed to land at 3:10 PM but it landed 1 hr 20 min early.
When did the plane land?

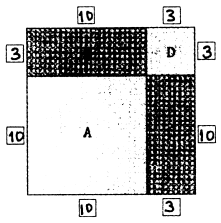
1:50 ← 20 min ← 2:10 ← 1 hr ← 3:10

The plane landed at 1:50 PM

[4 Points]

Compute the total area of 13 *unit* × 13 *unit* with long multiplication.

$$\begin{array}{r} 13 \\ \times\ 13 \\ \hline 39 \\ +\ 130 \\ \hline 169 \end{array}$$



Area A = 10 × 10 = 100 unit²
Area B = 10 × 3 = 30 unit²
Area C = 10 × 3 = 30 unit²
Area D = 3 × 3 = 9 unit²

Compute the total area by adding four areas → 169 unit²

$$\begin{array}{r} 100 \\ +\ 30 \\ +\ 30 \\ +\ 9 \\ \hline 169 \end{array}$$ unit²

Readiness for level 5 – Micro Assessment

To the Teacher: Total points for this test are 60.

[6 Points] $\frac{17}{3} = 5\frac{2}{3}$ $\quad 4\frac{2}{3} = \frac{14}{3}$ $\quad \frac{25}{4} = 6\frac{1}{4}$

$3\frac{3}{5} = \frac{18}{5}$ $\quad \frac{14}{3} = 4\frac{2}{3}$ $\quad 5\frac{5}{6} = \frac{35}{6}$

[2 Points]
If a mixed number has an improper fraction, convert it to a proper fraction. (Otherwise, leave it as is)

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

[2 Points] Borrow one to fractions for the mixed numbers below:

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

$3\frac{2}{5} = 2 + 1\frac{2}{5} = 2\frac{7}{5}$

[2 Points]
Borrow one from the whole number and write as a mixed number:

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

[6 Points]

$3\frac{5}{7} + 1\frac{4}{7} = 4\frac{5}{7} + \frac{4}{7} = 4\frac{9}{7} = 5\frac{2}{7}$

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

Borrowing needed? (Yes) / No

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

[2 Points] $\quad \frac{3}{4} = \frac{9}{12}$ $\qquad \frac{5}{6} = \frac{10}{18}$

[2 Points]
Reduce each fractions to its lowest denominator: $\quad \frac{6}{12} = \frac{1}{2}$ $\qquad \frac{6}{8} = \frac{3}{4}$

[3 Points]

$\frac{3}{4} - \frac{1}{3}$ → Multiples of denominators: 4, 8, (12), 16 ; 3, 6, 9, (12)

$= \frac{9}{12} - \frac{4}{12}$ ← $\frac{3}{4} = \frac{9}{12}$ (×3), $\frac{1}{3} = \frac{4}{12}$ (×4)

$= \frac{5}{12}$

[3 Points]

Start 3:30 — Half past three

End 3:45 — Quarter till four

Duration of the activity
→ 15 min OR
→ One quarter of an hour

[6 Points]

10 + 0.05 = 10.05 $\qquad$ 4 + 0.2 + 0.08 = 4.28

0.9 × 10 = 9 $\qquad$ $\frac{0.3}{10} = 0.03$

0.76 × 100 = 76 $\qquad$ $\frac{74}{100} = 0.74$

[2 Points] Compare: $\quad 1.3 > 1.15 \qquad 0.5 > 0.27$

[2 Points]

Round to tens → 825.74 ≈ 830 $\qquad$ Round to **tenths** → 825.74 ≈ 825.7

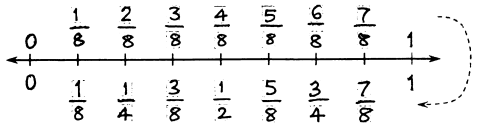
[2 Points] A truck needs four gallon gasoline to drive forty two miles. What is truck's mileage in *'miles per gallon'*?

Simplify: $\frac{42 \text{ miles}}{4 \text{ gallons}} = \frac{21}{2}\frac{\text{miles}}{\text{gallon}} = 10\frac{1}{2}$ miles per gallon

[2 Points] Write as mixed numbers or proper fractions

One and a half: $1\frac{1}{2}$ $\qquad$ Three quarters: $\frac{3}{4}$

[4 Points]



Simplify, if possible.

[2 Points]

Round to tens → 139.42 ≈ 140

Round to **tenths** → 139.42 ≈ 139.4

[2 Points]

I had 10 gallon milk in the refrigerator. I used 5.6 gallon milk for cooking. Then I bought 4.5 gallon milk from the grocery store. How much milk do I have in the refrigerator now?

$$\begin{array}{r} {\scriptstyle 9\ \ 10} \\ 10.0 \\ -\ 5.6 \\ \hline 4.4 \end{array} \qquad \begin{array}{r} 4.4 \\ +\ 4.5 \\ \hline 8.9 \end{array}$$

I have 8.9 gallon milk in the refrigerator now.

[6 Points] **Population of four states:**

Florida:	19,893,297
California:	38,802,500
Texas:	26,956,958
New York:	19,746,227

State with the most population: California

State with the least population: New York

Population of Florida: 19,893,297

Round to the nearest thousand: 19,893,297 ≈ 19,893,000

Round to the nearest million: 19,893,297 ≈ 20,000,000

Population of New York: 19,746,227

Round to the nearest thousand: 19,746,227 ≈ 19,746,000

Round to the nearest million: 19,746,227 ≈ 20,000,000

[4 Points]

Sam would like to eat $\frac{3}{4}$ of one pizza. Jack would like to eat $\frac{5}{8}$ of one pizza. How much pizza would they like to eat altogether? How many whole pizzas should they order?

$\frac{3}{4} + \frac{5}{8}$ → Multiples of denominators: 4, (8), 12 ; (8), 16

$= \frac{6}{8} + \frac{5}{8}$ ← $\frac{3}{4} = \frac{6}{8}$, $\frac{5}{8} = \frac{5}{8}$

$= \frac{11}{8} = 1\frac{3}{8}$

They would like to eat $1\frac{3}{8}$ pizza altogether.

They need to order 2 whole pizzas.