

Number Sense

Unit Test

Name: _____

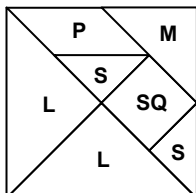
Date: _____

Section A

1. Circle the numbers which will divide evenly into 55 213 100:

2 3 4 5 6 10

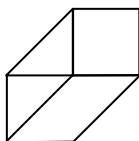
2. In a tangram ...



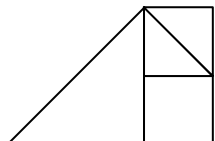
- 2 small triangles (s) cover a medium triangle (M);
- 2 small triangles (s) cover a square (SQ);
- 2 small triangles (s) cover a parallelogram (P);
- 4 small triangles (s) cover a large triangle (L).

What fraction of each shape is covered by a single small triangle (s)?

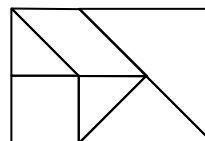
a)



b)



c)



3. There are 24 children in a class.

Each child chose to do a science project on mammals or on birds.

The chart shows the number of students who chose each topic.

	Mammals	Birds
Boys	5	7
Girls		
Children	11	

- a) Fill in the missing numbers in the chart.
- b) What fraction of the children chose to study:
 mammals? birds?
- c) What fraction of the girls chose to study:
 mammals? birds?

4. Write the following mixed fractions as improper fractions:

a) $4\frac{1}{3} = \frac{\quad}{\quad}$

b) $6\frac{2}{5} = \frac{\quad}{\quad}$

c) $3\frac{1}{4} = \frac{\quad}{\quad}$

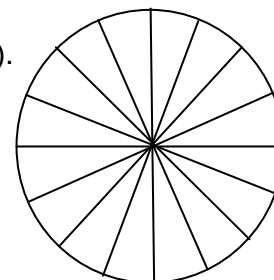
d) $2\frac{3}{7} = \frac{\quad}{\quad}$

Order these fractions from least to greatest: _____

5. $\frac{5}{8}$ of a pizza is covered in ham (H). $\frac{1}{2}$ of the pizza is covered in mushrooms (M).

Each piece has a topping. Complete the picture:

How many pieces are covered in ham *and* mushrooms? _____



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Section A (continued)

6. Rewrite each fraction as a mixed fraction in proper form. Show the steps.

a) $4\frac{7}{6} =$

b) $2\frac{4}{3} =$

c) $4\frac{8}{5} =$

7. Add or subtract.

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

b) $4\frac{2}{3} + 2\frac{3}{5} =$

8. Write these fractions in the boxes below (in order from least to greatest).

$\frac{1}{6}, \frac{5}{12}, \frac{11}{12}, \frac{1}{4}, \frac{2}{3}, \frac{1}{12}, \frac{5}{6}, \frac{1}{2}$

0										1
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9. Put a decimal in each number so that the digit 5 has the value of $\frac{1}{2}$.

a) 5 3 2

b) 3 5 2

c) 3 2 5

d) 5

10. Find the missing decimal in each of the following.

a) $1 = .37 + \square$

b) $2 = .41 + \square$

11. Divide with remainder.

a) $4 \overline{) \begin{array}{|c|c|} \hline & \\ \hline 7 & 5 \\ \hline & \\ \hline & \\ \hline & \\ \hline & \\ \hline & \\ \hline \end{array}}$

b) $7 \overline{) \begin{array}{|c|c|c|} \hline & & \\ \hline 9 & 6 & 4 \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}}$

c) $3 \overline{) \begin{array}{|c|c|} \hline & \\ \hline 8 & 4 \\ \hline & \\ \hline & \\ \hline & \\ \hline & \\ \hline & \\ \hline \end{array}}$

d) $8 \overline{) \begin{array}{|c|c|c|} \hline & & \\ \hline 3 & 8 & 7 \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}}$

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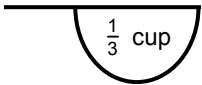
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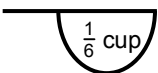
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Section B

12. Find all rectangles with side lengths that are whole numbers and have:
- a) perimeter = 18 units.
 - b) area = 12 units².
 - c) perimeter = 18 units *and* area = 18 units².
13. I am a prime number less than 10.
If you add 10 or 20 to me, the result is a prime number.
What number am I?
14. a) Find all the factors of 56 by dividing the number by the whole numbers in increasing order (i.e., divide the number by 2, 3, 4, 5... etc.).
How do you know when you can stop dividing?
- b) Find the GCF (Greatest Common Factor) and the LCM (Lowest Common Multiple) of 56 and 60.
15. a) Explain why 5×72 is divisible by 3.
b) What is the remainder when $5 \times 72 + 4$ is divided by 3?

16. Pam needs $2\frac{2}{3}$ cups of flour.

a)  **A** How many scoops of cup A would she need? _____

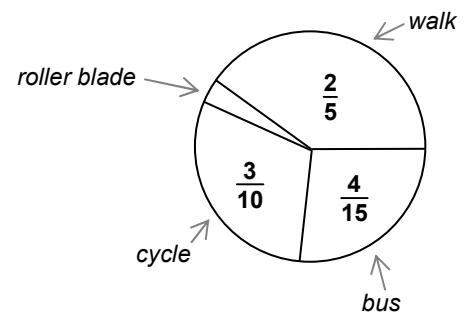
b)  **B** How many scoops of cup B would she need? _____

17. Alan started studying at 5:15.
He studied French for $\frac{2}{3}$ of an hour, science for $\frac{7}{20}$ of an hour and math for $\frac{5}{12}$ of an hour.
At what time did he stop studying?

18. a) Show by long division that there are 52 weeks in a year.
b) Which is longer: 65 weeks or $1\frac{3}{13}$ of a year?

19. This circle graph shows how the students in Grade 7 get to school:

- a) What fraction of the students roller blade to school?
b) There are 60 students in two Grade 7 classes.
How many take the bus to school?



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Section B (continued)

20. Tom and Andy worked together to paint a $16\frac{1}{6}$ metre wall.

On the first day, Tom painted $4\frac{3}{5}$ metres and Andy painted $4\frac{1}{2}$ metres.

Did they finish more than half the wall?

How many metres of wall still need to be painted?

21. Add or subtract.

a) $0.64 + 0.38$

b) $0.46 - 0.1$

c) $0.87 - 0.02$

d) $0.31 - 0.16$

e) $4.46 + 5.1$

f) $2.00 - 0.27$

22. Multiply or divide.

a) 5×1.8

b) 4×0.3

c) 100×1.81

d) 6×3.4

e) $6.56 \div 8$

f) $3.95 \div 10$

g) $3.56 \div 100$

h) $12.36 \div 5$

23. Sarah divides 159 stickers equally among 4 friends, and Hannah divides 199 stickers equally among 5 friends.

Who will have more stickers leftover?

Whose friends get more stickers?

24. A square has a perimeter of 2.76 m.

How long is each side?

25. James divides 3.5 m of rope into eight equal parts.

Each part is a whole number of decimetres long.

a) How long is each part?

b) How many decimetres of rope are left over?

26. Larissa wants to pour $1\frac{2}{5}$ L of juice into 0.3 L bottles.

How many bottles does she need?