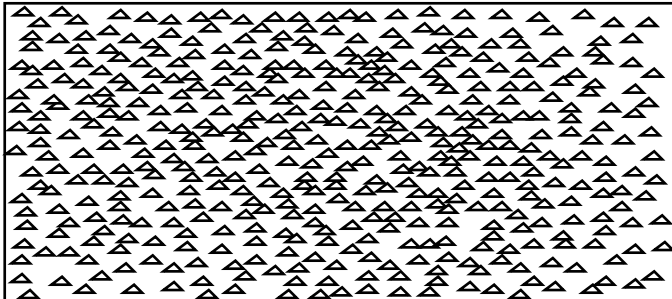


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### Counting and Computation with Whole Numbers

<b>1</b>	<i>About</i> how many days has a child in year 1 at school lived?	<b>A</b> 200 <b>B</b> 2000 <b>C</b> 20 000 <b>D</b> 200 000
<b>2</b>	<i>About</i> how many triangles are there here? <div style="text-align: center; border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;">  </div>	<b>A</b> 20 <b>B</b> 50 <b>C</b> 100 <b>D</b> 200 <b>E</b> 400
<b>3</b>	A school has 610 children. If 98 children are away on a trip, <i>about</i> how many are still at school?	<b>A</b> 400 <b>B</b> 500 <b>C</b> 600 <b>D</b> 700
<b>4</b>	Whitney has ten dollars. She has six dollars less than Rebecca does. How many dollars does Rebecca have? _____	
<b>5</b>	Barb is a nine year old at my school. She says that she is 30 000 days old. Is that possible? Say why.	<b>A</b> Yes <b>B</b> No <b>C</b> Maybe. Tell how you decided. _____ _____
<b>6</b>	<i>Without calculating the exact answer, circle the best estimate for:</i> <div style="text-align: center; margin-top: 10px;"> <math>145 \times 4</math> </div>	<b>A</b> Greater than 450 <b>B</b> Less than 450 <b>C</b> Impossible to tell without calculating

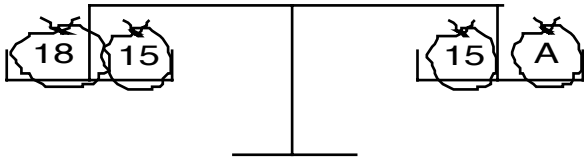
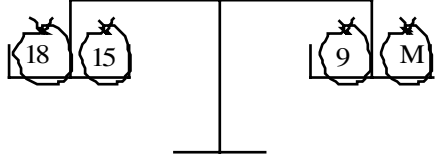
7	Without calculating the exact answer, circle the best estimate for: $21 \times 19$	A 299 B 399 C 499
8	Which two numbers multiplied together give an answer closest to the target number? 4      18      50      37 Target Number : <input type="text" value="75"/>	_____ and _____
9	Which two numbers multiplied together give an answer closest to the target number? 4      18      50      37 Target Number : <input type="text" value="1000"/>	_____ and _____
10	$930 \times 134$ is equal to 124620. Use this to find the answer to: $124620 \div 93$	_____
11	A cat eats 600 g of fish in 4 days. How many grams will the cat eat in 6 days?	A 400 g B 600 g C 800 g D 900 g E 1000 g
12	A trip took 6 hours travelling at an average speed of 80 kilometres per hour. The return trip took 4 hours. What was the average speed for the round trip?	_____

### Effect of Operations - Whole Numbers

13	The digits are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. Put one digit in each box so that the answer will be as <i>big</i> as possible. Note that digits 4, 2, 3, and 8 have already been used and therefore should not be used again. Use any digit only once.	$4 \square \square - 238 = ?$
14	The digits are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. Put one digit in each box so that the answer will be as <i>big</i> as possible. Note that digits 4, 3, 1, and 2 have already been used and therefore should not be used again. Use any digit only once.	$431 - 2 \square \square = ?$
15	Five bugs each have fifteen spots on their back. Which of these tells us how many spots there are altogether?	A $5 + 15$ B $15+15+15+15+15$ C $15 + 5$ D $5 + 5 + 5 + 5 + 5$

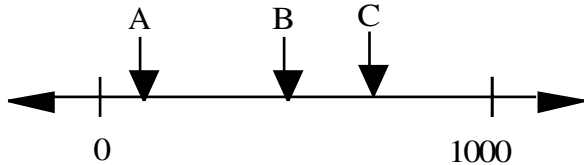
16	When a 3 digit number is added to a 3 digit number the result is:	<p>A always a 3 digit number</p> <p>B always a 4 digit number</p> <p>C always a 5 digit number</p> <p>D either a 3,4 or 5 digit number</p> <p>E either a 3 or 4 digit number</p>
17	When a 2-digit number is multiplied by a 2-digit number, the result is:	<p>A Always a 3 digit number</p> <p>B Always a 4 digit number</p> <p>C Either a 3 or 4 digit number</p> <p>D Sometimes a 5 digit number</p>
18	Austin has a \$50 note and he spends \$29. He gets \$24 in change. Which sum could he do to check if this is the right change?	<p>A <math>29 + 24</math></p> <p>B <math>24 + 50</math></p> <p>C <math>50 + 24</math></p> <p>D <math>50 + 29</math></p>
19	Without calculating the exact answer, circle the best estimate for: $45 \times 105$	<p>A 4000</p> <p>B 4600</p> <p>C 5200</p>

### Equivalent Expressions - Whole Numbers

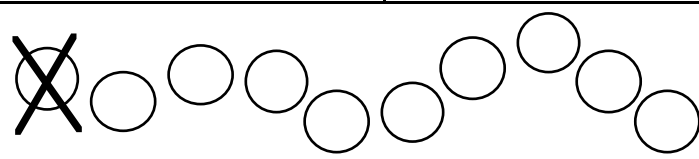
20	 <p>Jim has balanced some bags of marbles. The numbers show how many marbles are in each bag. How many marbles are in the bag marked A? (Circle the correct answer)</p>	<p>A 3</p> <p>B 15</p> <p>C 18</p> <p>D 33</p>
21	 <p>Barbara has balanced some bags of marbles. The numbers show how many marbles are in the bags. How many marbles are in the bag marked M?</p>	<p>A 6</p> <p>B 9</p> <p>C 15</p> <p>D 24</p> <p>E 42</p>

22	The farmer has stored all his apples in 80 boxes with 40 apples in each box. He now needs to repack them all into 40 new boxes. How many apples will there be in each new box.	A 2 B 40 C 80 D 120
23	Without calculating the exact answer, circle the largest answer.	A $18 \times 17$ B $16 \times 18$ C $17 \times 19$
24	Without calculating answers, circle the expression that represents the larger amount.	A $145 \times 4$ B $144+146+148+150$
25	$16 \times 0 = \square$ The number in the box ...	A must be 16 B must be 160 C must be 0 D could be any number
26	$15 \times \square = 15$ The number in the box ...	A must be 0 B must be $\frac{1}{15}$ C must be 1 D must be 15 E could be any number
27	$93 \times 134$ is equal to 12462. Use this to write the answer to $93 \times 135$	_____
28	Write $>$ or $=$ or $<$ to make this a true statement.	$456 \div 8 \square 456 \times \frac{1}{8}$
29	A four digit number is represented by $\square\square\square\square$ . If $\square\square\square\square \div 30 > 40$ , then which of these statements is true?	A $30 \times 40 > \square\square\square\square$ B $30 \times 40 < \square\square\square\square$ C $30 \times \square\square\square\square < 40$ D $40 \times \square\square\square\square < 30$
30	Jim bought 3 sleeping bags at \$98 each. How could he work out how much he spent?	A $3 \times \$100$ minus \$1 B $3 \times \$100$ minus \$2 C $3 \times \$100$ minus \$3 D $3 \times \$100$ minus \$6


### Multiple Representations - Whole Numbers

31	Estimate the number shown by each arrow: 	A _____ B _____ C _____
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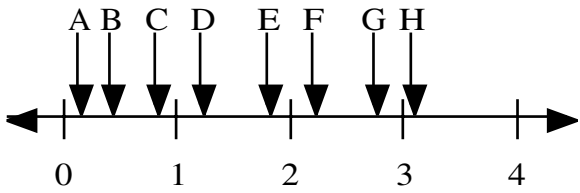
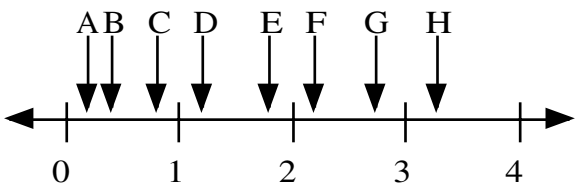
### Number Concepts - Whole Numbers

32	Here are five digits: 2, 6, 3, 5, 1. Arrange <i>all</i> these digits to make the smallest number possible. Use each digit only once.	_____
33	Here are five digits: 2, 6, 3, 5, 1. Arrange them to make the number nearest to 20 000. Use each digit once.	_____
34	There is a cross on the first circle. Put a cross on the seventh circle.	
35	Thirty-four is the same as 34. Four hundred and three is the same as:	_____
36	Thirty-four is the same as 34. Six thousand and ninety-two is the same as:	_____
37	If I have \$378 in my savings account and withdraw all my money what is the maximum number of 10 dollar notes would the bank be willing to give me?	_____

### Counting and Computation - Fractions

38	Peter took one third of the apples from a bag. Here are Peter's apples: <div style="text-align: center; margin: 10px 0;">  </div> Ben took all the others from the bag. How many apples were there in the bag to start with?	_____
39	A watermelon is cut into quarters. Then each quarter is cut in half. How many pieces of watermelon are there now? Circle your answer.	<b>A</b> 2 <b>B</b> 4 <b>C</b> 6 <b>D</b> 8
40	Austin had a \$5 note which he changes into 20 cent coins. How many coins will he get?	<b>A</b> 4 <b>B</b> 5 <b>C</b> 9 <b>D</b> 20 <b>E</b> 25
41	Use two of the numbers 3, 4, 9, 12 to make a fraction as close as possible to $\frac{1}{2}$ .	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin-right: 10px;"></div> </div>

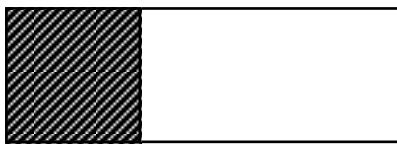

## Number Concepts - Fractions

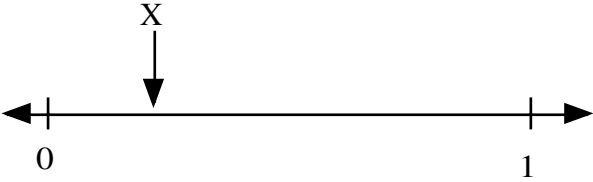
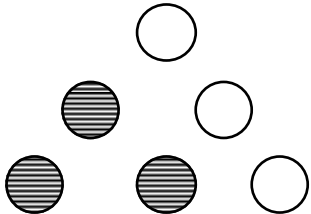
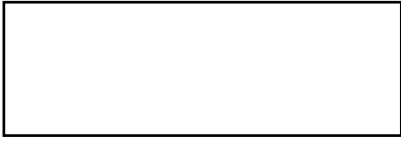
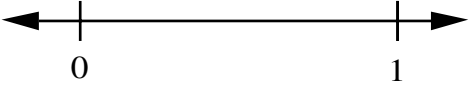
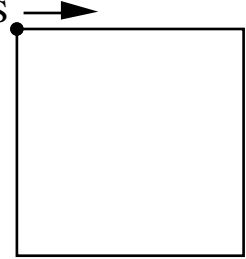
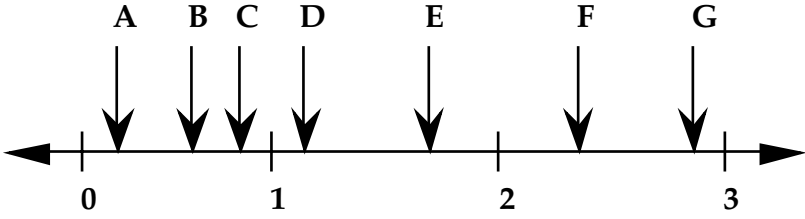
<b>42</b>	Without calculating, which total is more than 1?	A $\frac{2}{5} + \frac{3}{7}$ B $\frac{1}{2} + \frac{4}{9}$ C $\frac{3}{8} + \frac{2}{11}$ D $\frac{4}{7} + \frac{1}{2}$
<b>43</b>	Circle the number you can put in the box to make this sentence true:  $\frac{1}{2} \times \square = \frac{3}{6}$	A $\frac{2}{4}$ B $\frac{2}{3}$ C 1 D 3
<b>44</b>	<div style="text-align: center;">  </div> <p>On the number line above, which letter best represents the following: <math>A \times G</math></p>	_____
<b>45</b>	<div style="text-align: center;">  </div> <p>On the number line above, which letter best represents the following: <math>B + F</math></p>	_____

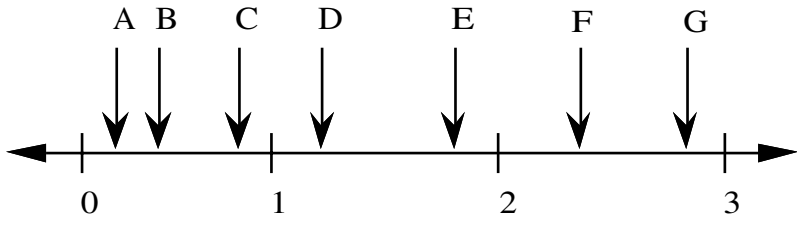

## Equivalent Expressions - Fractions

<b>46</b>	Write < or = or > to make this a true statement.	$5 \times 7\frac{1}{2} \square 35 + \frac{1}{2}$
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## Multiple Representations - Fractions

<b>47</b>	<div style="text-align: center;">  </div> <p>About how much of this box is shaded? Give your answer as a <i>fraction</i>.</p>	_____
<b>48</b>	Shade $\frac{3}{4}$ of this rectangle.	

49	<p>What fraction matches the letter X on this number line? Circle the correct answer.</p> 	<p>A <math>\frac{1}{2}</math>            B <math>\frac{1}{3}</math>            C <math>\frac{1}{7}</math>            D <math>\frac{1}{5}</math></p>
50	<p>Circle the fraction, which shows how much has been shaded.</p> 	<p>A <math>\frac{1}{2}</math>            B <math>\frac{2}{6}</math>            C <math>\frac{4}{6}</math>            D <math>\frac{4}{2}</math></p>
51	<p>Shade in one quarter of this rectangle.</p>	
52	<p>Place the numbers <math>\frac{1}{10}</math> and <math>\frac{4}{5}</math> in their correct positions on this number line:</p>	
53	<p>You are going to walk <i>once</i> around a square-shaped field. You start at the corner marked S and move in the direction shown by the arrow. Mark with an X where you will be after <math>\frac{1}{3}</math> of your walk.</p>	
54	<p>Circle all the statements that are true about the number <math>\frac{2}{5}</math>.</p>	<p>A It is greater than <math>\frac{1}{2}</math>            B It is the same as 2.5            C It is equivalent to 0.4            D It is greater than <math>\frac{1}{3}</math></p>
55	 <p>Which letter in the number line above names a fraction where the numerator is <i>slightly more</i> than the denominator?</p> <p>_____</p>	

56	 <p>Which letter in the number line above names a fraction where the numerator is <i>nearly</i> twice the denominator?</p>	_____
57	Shade in two thirds ( $\frac{2}{3}$ ) of this shape.	

### Number Concepts - Fractions

58	Tom cuts a cake into four equal pieces and eats two of them. What fraction of the whole cake is left?	_____
59	How many ten cents make a dollar?	_____
60	$\frac{3}{4}$ is a fraction between $\frac{1}{2}$ and 1. Write two other fractions, between $\frac{1}{2}$ and 1.	_____ and _____
61	Circle the fraction which represents the largest amount:	<b>A</b> $\frac{5}{6}$ <b>B</b> $\frac{5}{7}$ <b>C</b> $\frac{5}{8}$ <b>D</b> $\frac{5}{9}$
62	Put two of the numbers 4, 9, 12 in the boxes make a fraction as close as possible to $\frac{2}{3}$ .	<div style="text-align: center;"> <input style="width: 40px; height: 30px; border: 1px solid black;" type="text"/>  <hr style="width: 100%; border: 0.5px solid black;"/> <input style="width: 40px; height: 30px; border: 1px solid black;" type="text"/> </div>
63	<p>How many different <i>fractions</i> are there between <math>\frac{2}{5}</math> and <math>\frac{3}{5}</math> ?</p> <p>Circle your answer and, if there is a blank, fill it in.</p>	<b>A</b> None. <b>B</b> One. What is it? _____ <b>C</b> A few. Give two: _____ and _____ <b>D</b> Lots. Give two: _____ and _____
64	Write a number in the box to make a fraction that represents a number between 2 and 3.	<div style="text-align: center;"> <input style="width: 40px; height: 30px; border: 1px solid black;" type="text"/>  <hr style="width: 100%; border: 0.5px solid black;"/> <b>8</b> </div>
65	<p>In the fraction <math>\frac{1}{8}</math> the numerator is 1.</p> <p>Fill in the boxes to make a fraction between 0 and <math>\frac{1}{10}</math> whose numerator is <i>not</i> 1.</p>	<div style="text-align: center;"> <input style="width: 40px; height: 30px; border: 1px solid black;" type="text"/>  <hr style="width: 100%; border: 0.5px solid black;"/> <input style="width: 40px; height: 30px; border: 1px solid black;" type="text"/> </div>



66	Circle all fractions listed here that are greater than $\frac{3}{4}$ but less than 1.	$\frac{2}{3}$ $\frac{5}{8}$ $\frac{4}{5}$ $\frac{7}{10}$ $\frac{4}{3}$
67	$\frac{1}{3}$ is a fraction between $\frac{1}{2}$ and $\frac{1}{4}$ . Name another fraction between $\frac{1}{2}$ and $\frac{1}{4}$ .	_____

### Counting and Computation - Decimals

68	Ten bottles of juice cost \$7.95 at one store. I can get five bottles for \$4.15 at a second store. Where is the juice cheaper - at the first or second store?	<b>A</b> First store <b>B</b> Second store Tell how you decided: _____ _____ _____
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### Effect of Operations -Decimals

69	Without calculating the exact answer circle the best estimate for: $29 \times 0.98$	<b>A</b> more than 29 <b>B</b> less than 29 <b>C</b> impossible to tell without working it out
70	Which is the greatest number?	<b>A</b> $29 + 0.8$ <b>B</b> $29 \times 0.8$ <b>C</b> $29 \div 0.8$ <b>D</b> $29 - 0.8$
71	Without calculating the exact answer, circle the best estimate for: $87 \times 0.09$	<b>A</b> a lot less than 87 <b>B</b> a little less than 87 <b>C</b> a little more than 87 <b>D</b> a lot more than 87
72	Only one of the answers is correct. Without calculating, decide which one it is, and circle it.	<b>A</b> $45 \times 1.05 = 39.65$ <b>B</b> $4.5 \times 6.5 = 292.5$ <b>C</b> $87 \times 1.076 = 93.61$ <b>D</b> $585 \times 0.95 = 595.45$
73	Without calculating the exact answer, circle the best estimate for: $54 \div 0.09$	<b>A</b> a lot less than 54 <b>B</b> a little less than 54 <b>C</b> a little more than 54 <b>D</b> a lot more than 54
74	Without calculating the exact answer, circle the best estimate for: $29 \div 0.8$	<b>A</b> less than 29 <b>B</b> equal to 29 <b>C</b> greater than 29 <b>D</b> impossible to tell without calculating


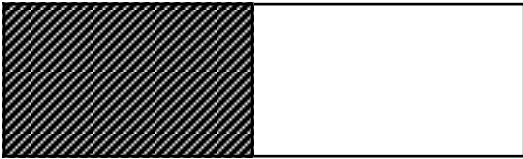
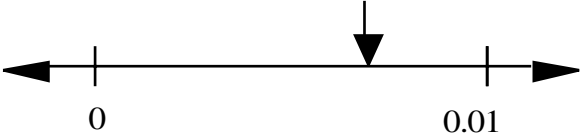
<b>75</b>	Mary had \$426 and spent 0.9 of it on clothes. <i>Without calculating the exact answer, circle the best estimate for how much she spent.</i>	<b>A</b> slightly less than \$426 <b>B</b> much less than \$426 <b>C</b> slightly more than \$426 <b>D</b> impossible to tell without calculating
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### Equivalent Expressions - Decimals & Mixed

<b>76</b>	0.5 x 840 is the same as	<b>A</b> 840 ÷ 2 <b>B</b> 5 x 840 <b>C</b> 5 x 8400 <b>D</b> 840 ÷ 5 <b>E</b> 0.50 x 84
<b>77</b>	Circle the number which can be put in <i>both</i> boxes to make the sentence true: $243 \times \square = \square \times 24.3$	<b>A</b> 0 <b>B</b> 0.1 <b>C</b> 1 <b>D</b> 10

### Multiple Representations - Decimals and Mixed

<b>78</b>	Place the numbers 0.1 and 0.8 in their correct positions on this number line.	
<b>79</b>	<p>Which letter on the number line above best represents 2.19?</p>	_____
<b>80</b>	<i>Estimate the decimal shown by the arrow on the number line:</i>	_____
<b>81</b>	<i>Estimate the decimal shown by the arrow on the number line:</i>	_____

82	Circle the decimal which best represents the amount of the box shaded. 	A 0.018 B 0.15 C 0.4 D 0.801 E 0.52
83	Circle the decimal which best represents the amount of the box shaded. 	A 0.018 B 0.15 C 0.45 D 0.801 E 0.52
84	 Estimate the decimal shown by the arrow on the number line:	_____
85	Put these numbers in order, starting with the smallest on the top row.  0.595 $\frac{3}{5}$ 61%     0.3     30.5%	_____ _____ _____ _____ _____

### Number Concepts - Decimals

86	For a long time Jane has been putting only 10 cent coins in her piggy bank. Last night she opened it and counted her money. She had \$46.70. How many 10 cent coins were in the bank?	_____
87	Scott ran 100 metres in 14.52 seconds. Kelly took 2 tenths of a second longer. How long did it take Kelly to run 100 metres?	A 34.52 seconds B 16.52 seconds C 14.72 seconds D 14.54 seconds E 14.50 seconds
88	How many different decimals are there between 1.52 and 1.53? Circle your answer and, if there is a blank, fill it in.	A None. B One. What is it? _____ C A few. Give two: _____ and _____ D Lots. Give two: _____ and _____

## Counting and Computation - Percentages

89	A student increased his exam score from 40 to 50. What percentage increase is this?	<b>A</b> 10% <b>B</b> 25% <b>C</b> 50% <b>D</b> 90%
90	Last week a diary cost \$4.50. This week there is 10% off the cost of all diaries. What is the cost of the diary this week?	_____

## The Effect of Operations Percentages

91	Mary had \$426 and spent 90% of the money on clothes. <i>Without calculating an exact answer</i> , circle the best estimate for how much she spent.	<b>A</b> slightly less than \$426 <b>B</b> much less than \$426 <b>C</b> slightly more than \$426 <b>D</b> impossible to tell without calculating
92	A tank holds 1000 fish. If I increase the number by 50%, how many fish will there be now in the tank?	<b>A</b> 500 <b>B</b> 1050 <b>C</b> 1500 <b>D</b> 2000
93	Dale had \$150. She spent 100% of it. How much money did she have left?	<b>A</b> \$0 <b>B</b> \$50 <b>C</b> \$100 <b>D</b> \$150 <b>E</b> \$250 <b>F</b> \$300