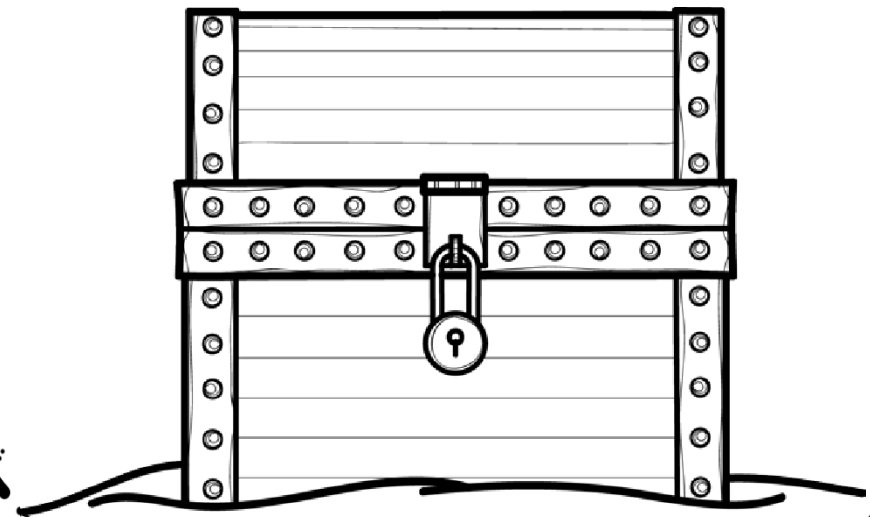
Choose at least 5 colors and create a design in the grid below. Then find the decimal, percent, and fraction each color covers.

Color	Number	Fraction	Decimal	Percent

Fraction Decimal Percent Escape from the Island

Name: _____



©2018 Teaching in an Organized Mess

www.teachingwithstowe.blogspot.com

Challenge #1

1.	2.	3.	4.	5.	6.	7.
18.	9.	10.	11.	12.	13.	14.

Challenge #2

Challenge #3

1.	2.	3.	4.	5.	6.
7.	8.	9.	10.	11.	12.
13.	14.	15.	16.	17.	118.

Challenge #4

Challenge #5

1	2	3	4	5	6	7
8.	9	10	11	12	13	14

Challenge #6

#1				
#2				
#3				
#4				

©2018 Teaching in an Organized Mess

CHALLENGES

Print these challenge labels to go on the outside of envelopes of folders. They include the instructions for the challenges.

Challenge #1

Solve each problem. Select the correct answer from the column. Use the decoder to find which letter corresponds with the symbols to form your code words.

Challenge #2

Cross off the circles that do not have equivalent numbers. Follow the arrows and decode the symbols in the circle you did NOT cross off to form the code word.

Challenge #3

Match the model with the correct fraction, decimal, or percent that it represents. Use the decoder to find which letter corresponds with the symbol. The letters together make your code.

Challenge #4

Read each statement and determine if it is true or false. Decode the symbols for the TRUE statements ONLY to form 2 code words.

Challenge #5

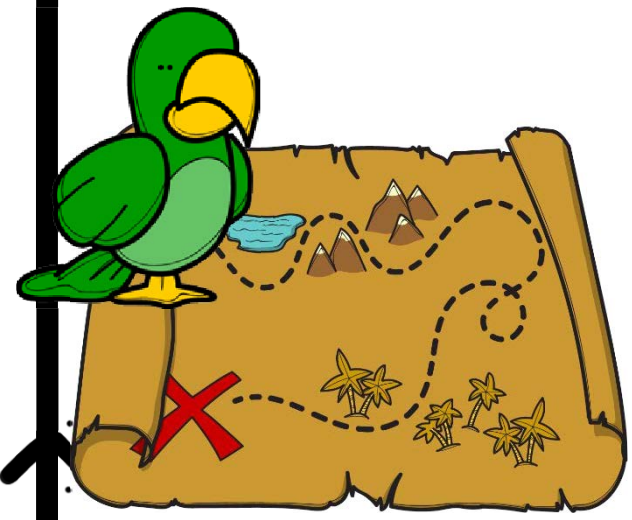
Read each situation and cover it up with the correct fraction, decimal or percent. Use the decoder to decode each symbol. Write each letter down from left to right for your code word.

Challenge #6

Cross off the circles that do NOT contain a number equivalent number in the directions. Decode the symbols in the circles with equivalent number. Read the letters from left to right to form 4 code words.

Treasure Map
Escape Room

You are stuck on a island in the middle of the ocean. You find a treasure map that will help you find treasure and escape the island! You also find Harry the Parrot who gives you challenges in exchange for his help reading the treasure map.



In order to get the treasure and escape, you and your classmates need to solve puzzles to get clues before you get the next challenge.

Work together to solve the challenges, find the treasure, and escape the island!

© 2018 Teaching in an Organized Mess

Challenge #1

Solve each problem. Select the correct answer from the column. Use the decoder to find which letter corresponds with the symbols to form your code words.

1	Judy answered 85% of the questions correctly on her science test. Which fraction represents the number of questions she answered correctly?	$\frac{17}{20}$	$\frac{5}{8}$	$\frac{17}{25}$
2	In Bridget's math class, 3 out of 5 students are wearing tennis shoes. Which decimal represents the number of students wearing tennis shoes?	0.3	0.6	0.06
3	Wallace made 45 out of 50 free throws this basketball season. What percentage of free throws did Wallace make?	45%	85%	90%
4	Bethany is making 1 cup of purple paint by mixing red and blue paint. She uses 0.8 cups of red paint. Which percentage represents the part of the purple paint that is red?	0.8%	8%	80%
5	Derek planted a garden this spring, 12% of the garden is tomatoes. Which fraction is equivalent to the percent of the garden that is tomatoes?	$\frac{12}{10}$	$\frac{3}{25}$	$\frac{3}{20}$
6	Zoanne's puppy grew at a rate of 1.3 in the last year. Which percent represents the rate at which Zoanne's puppy grew?	13%	130%	1.3%
7	Miranda has earned 5% of the money she needs to buy a new bicycle. Which fraction is equivalent to 5%?	$\frac{5}{20}$	$\frac{5}{10}$	$\frac{1}{20}$

1	2	3	4	5	6	7

©2018 Teaching in an Organized Mess

Challenge #1

Solve each problem. Select the correct answer from the column. Use the decoder to find which letter corresponds with the symbols to form your code words.

8	Conner needed to save $50 for concert tickets. He saved $75 by the end of summer. Represent the part of money he saved as a percent.	66%	150%	50%
9	Oliver saved $55 to spend at the mall. He spent $22 on jeans. Represent the part of the money he did NOT spend as a decimal.	0.6	0.06	6%
10	A farmer planted 20 acres of crops. Three of the acres she planted are tomatoes. What percent represents the part of the crop that is tomatoes?	15%	3%	20%
11	Eli saves 18% of his income for emergencies. What fraction is equivalent to this percentage?	$\frac{18}{50}$	$\frac{9}{100}$	$\frac{9}{50}$
12	Nixon grew 1.125 inches last year. Represent this decimal as a fraction.	$1\frac{1}{8}$	$1\frac{5}{12}$	$1\frac{25}{50}$
13	Martin donated 42% of his toys to charity. Represent this percent as a decimal.	0.42	4.2	0.042
14	It rained 24 out of 30 days in April. Which percentage represents the number of days it rained in April?	125%	80%	24%

8	9	10	11	12	13	14

©2018 Teaching in an Organized Mess

Challenge #2

Cross off the circles that do not have equivalent numbers. Follow the arrows and decode the symbols in the circle you did NOT cross off to form the code word.

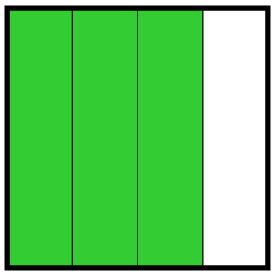
$\frac{3}{25}=15\%$	$\frac{6}{30}=5\%$	$\frac{4}{25}=0.16$	$\frac{5}{15}=0.3\overline{3}$
$\frac{7}{21}=7.21$	$\frac{5}{25}=12.5\%$	$\frac{5}{8}=62.5\%$	$\frac{4}{5}=80\%$
$\frac{3}{6}=0.50$	$\frac{3}{8}=0.375$	$\frac{6}{20}=0.3$	$\frac{1}{25}=0.4$
$\frac{7}{35}=20\%$	$\frac{9}{15}=0.6$	$\frac{2}{8}=0.4$	$\frac{4}{10}=2.5$
$\frac{8}{40}=0.05$	$\frac{3}{5}=60\%$	$\frac{3}{4}=0.75$	$\frac{1}{50}=0.2\%$

©2018 Teaching in an Organized Mess

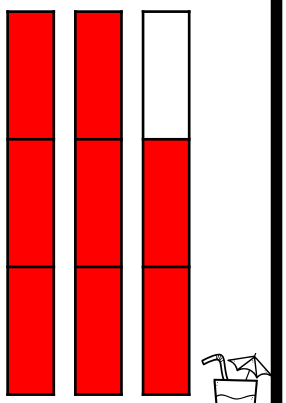
www.teachingwithstowe.blogspot.com

Challenge #3

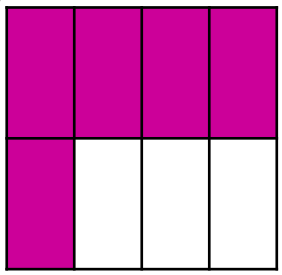
1. 25%



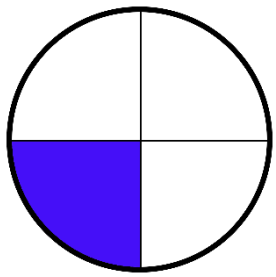
2. 0.75



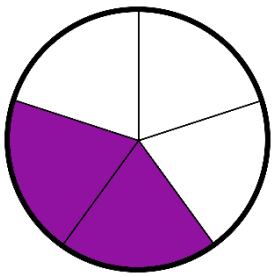
3. $\frac{2}{5}$



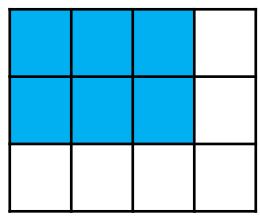
4. 50%



5. $2\frac{2}{3}$



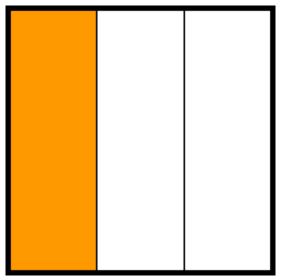
6. 0.625



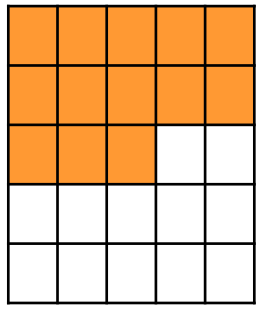
©2018 Teaching in an Organized Mess

Challenge #3

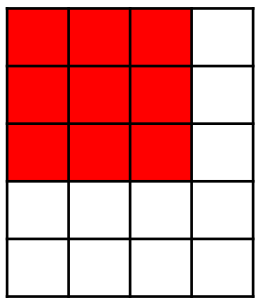
7. 100%



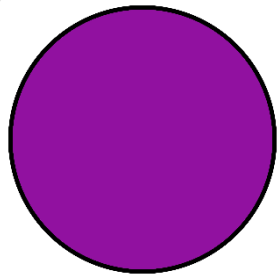
8. 0.52



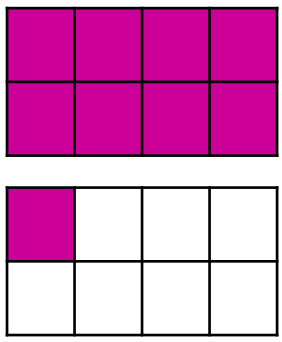
9. $\frac{1}{3}$



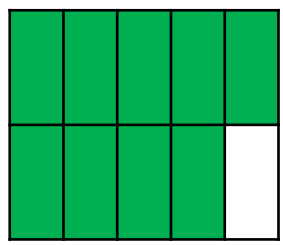
10. 45%



11. $\frac{9}{10}$



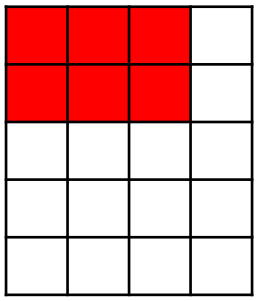
12. 1.125



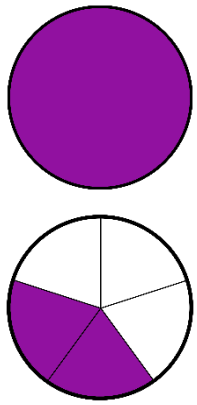
©2018 Teaching in an Organized Mess

Challenge #3

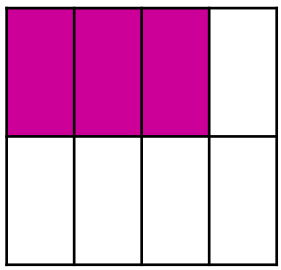
13. 140%



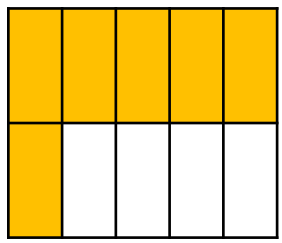
14. 0.08



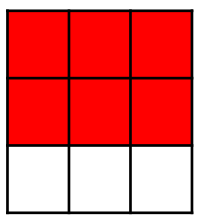
15. $\frac{3}{10}$



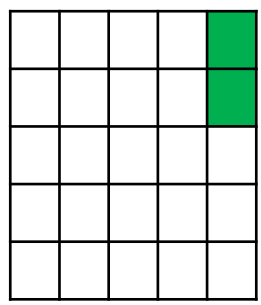
16. $66\frac{2}{3}\%$



17. 0.6



18. $\frac{3}{8}$



©2018 Teaching in an Organized Mess

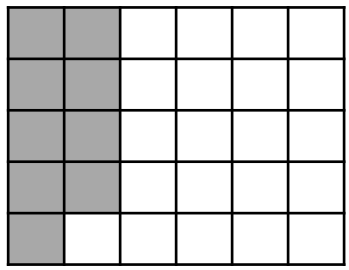
Challenge #4

Read each statement and determine if it is true or false. Decode the symbols for the TRUE statements ONLY to form 2 code words.

Dan surveyed his classmates on their favorite school subject. The results are shown in the table.

Subject	Part of Votes
math	$^3/_8$
science	25%
social studies	$^1/_4$
reading	12.5%

The shaded part of the model below shows the part of Jamal's allowance that he is saving for college.



1. ____ The same percentage of students picked science and social studies as their favorite subject.

2. ____ 37.5% of students said math was their favorite subject.

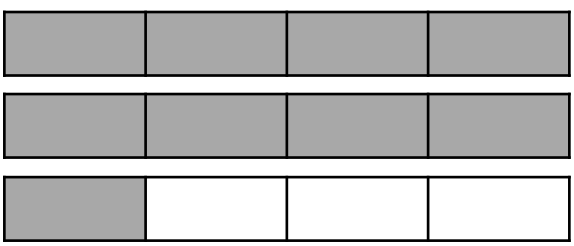
3. ____ The same percentage of students picked math and reading as their favorite subject.

4. ____ Jamal saves 30% of his income.

5. ____ Jamal saves $\frac{9}{10}$ of his income.

6. ____ 0.7 of Jamal's income does not go to savings for college.

Use the model below the determine if the statements are true or false.



7. ____ The model shows $\frac{9}{4}$ shaded.

8. ____ 75% of the model is unshaded.

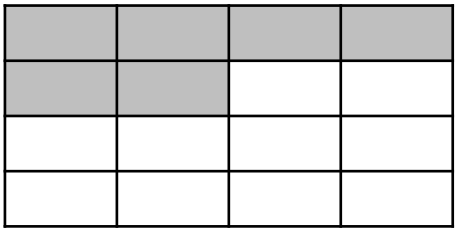
9. ____ The model shows 2.1 shaded.

©2018 Teaching in an Organized Mess

Challenge #4

Read each statement and determine if it is true or false. Decode the symbols for the TRUE statements ONLY to form 2 code words.

Use the model below the determine if the statements are true or false.

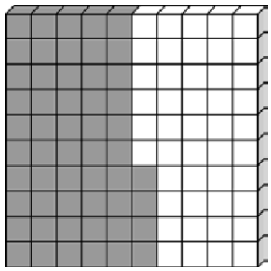


10. ____ 60% of the model is shaded.

11. ____ 0.625 of the model is unshaded.

12. ____ $\frac{3}{8}$ of the model is shaded.

Use the model below the determine if the statements are true or false.



13.____ 54% of the model is shaded.

14.____ $\frac{27}{50}$ of the hundredths grid is shaded.

15. ____ 0.27 of the hundredths grid is shaded.

Asia has completed a budget for her earnings. The table below shows what part of her income she spends for each category.

Category	Part of Income
rent	$^3/_{20}$
food	0.1
savings	37.5%
fun spending	$^1/_8$
other bills	0.25

16. ____ Asia spends the same amount on rent and food every month

17. ____ Asia spends 12.5% of her income on fun spending.

18. ____ Asia spends 0.3 of her income on rent.

©2018 Teaching in an Organized Mess

Read each situation and cover it up with the correct fraction, decimal or percent. Use the decoder to decode each symbol. Write each letter down from left to right for your code word.

Challenge #5

1. Marcus ate 15% of a package of cookies. What decimal represents the part of the cookies he did eat?

2. April's free throw percentage for the season was 65%. What fraction of free throws did she make?

3. Max read 135 pages of his book which is $\frac{3}{8}$ of the book. What percentage of the book did he read?

4. Gavin has $\frac{2}{3}$ a cup of butter. Which decimal represents how much butter he has?

5. Teddy has a coupon for $\frac{1}{5}$ off the price of shoes. What percentage off will he receive?

6. In Ms. Yang's class, 45% of the students play an instrument. Represent this value as a decimal.

7. Sales tax is 8% of the total cost. Represent this value as a fraction.

8. Lyndsey grew $1\frac{1}{4}$ feet in the last 2 years. Represent this value as a decimal.

9. $\frac{1}{3}$ of Ms. Bank's class is left handed. What percentage of her class is left handed?

10. A jacket is 35% off the original price. What decimal is equivalent to 35%?

11. Seth has 9 out of 12 questions correct on his test. What percent correct did he get on his test?

12. Kelly ran for student council for her class. She received 55% of the vote. What fraction is equivalent to 55%?

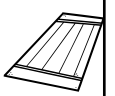
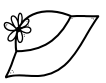
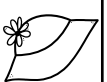
13. Julie ate $\frac{1}{8}$ of her pizza last night. What percent represents how much she <u>has left</u>?

14. Trevor's bean plant grew at a rate of 1.45 in the last month. What percentage is equivalent to that rate?

1	2	3	4	5	6	7	8	9	10	11	12	13	14

©2018 Teaching in an Organized Mess

Challenge #5

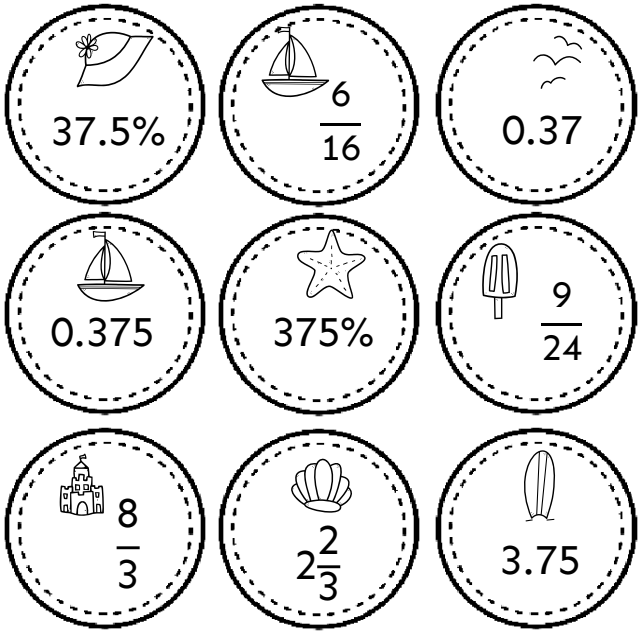
Cut apart these cards for students to cover up the problems		20%	87.5%
$0.6\overline{6}$	0.15	0.45	37.5%
$\frac{11}{20}$	1.25	145%	$33\frac{1}{3}\%$ 
75%	$\frac{13}{20}$ 	$\frac{4}{25}$	0.35 

©2018 Teaching in an Organized Mess

Challenge #6

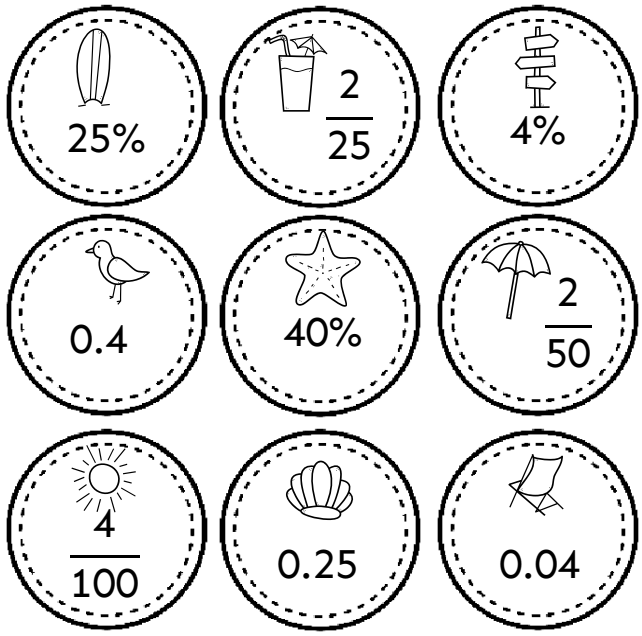
Cross off the circles that do NOT contain a number equivalent number in the directions. Decode the symbols in the circles with equivalent number. Read the letters from left to right to form 4 code words.

Find all numbers that are equivalent to $\frac{3}{8}$



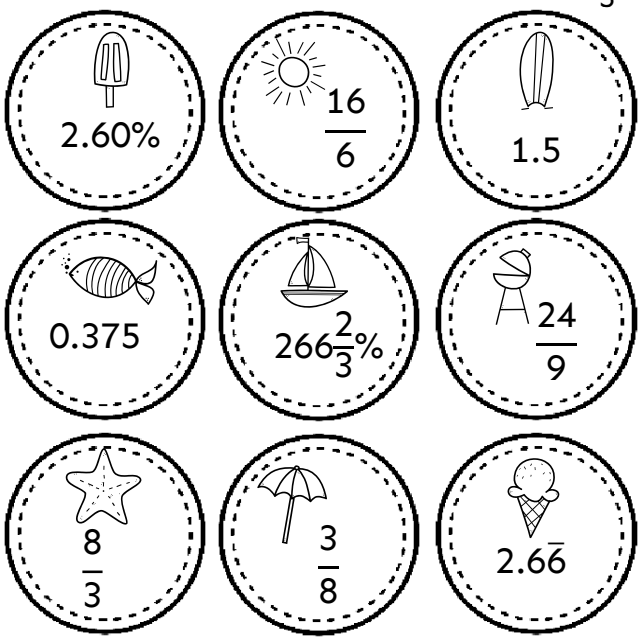
#1 | | | | |

Find all numbers that are equivalent to $\frac{1}{25}$



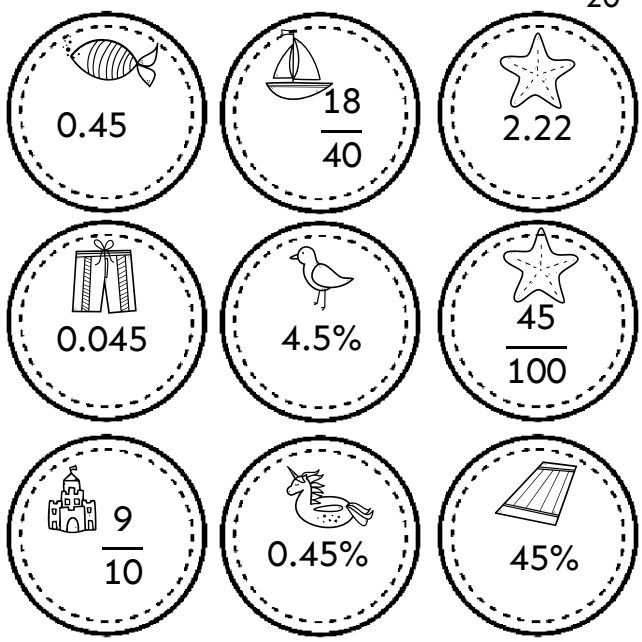
#2 | | | | |

Find all numbers that are equivalent to $2\frac{2}{3}$



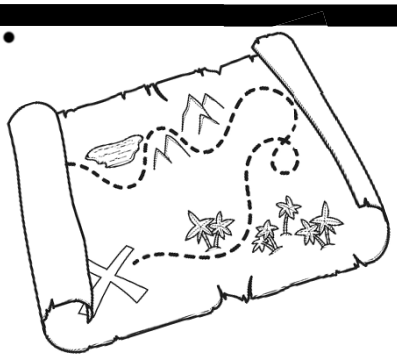
#3 | | | | | |

Find all numbers that are equivalent to $\frac{9}{20}$



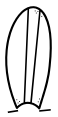
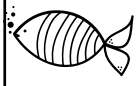
#4 | | | | |

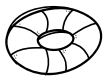
©2018 Teaching in an Organized Mess

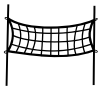


Decoder

Use this to decode your puzzles to escape the island.

A	B	C	D	E	F	G	H	I
								

J	K	L	M	N	O	P	Q	R
								

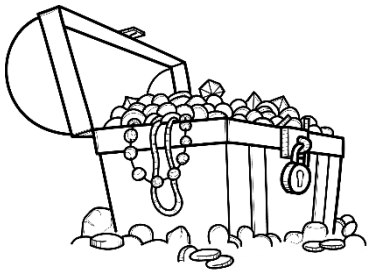
S	T	U	V	W	X	Y	Z
							

©2018 Teaching in an Organized Mess

Congratulations!

You escaped and found the treasure

© 2018 Teaching in an Organized Mess



I escaped

the Island

and found

the Treasure!

©2018 Teaching in an Organized Mess www.teachingwithstowe.blogspot.com

ANSWER KEYS

ANSWER KEY

Challenge #1

1.	2.	3.	4.	5.	6.	7.
W	A	R	N	I	N	G

18.	9.	10.	11.	12.	13.	14.
D	O	L	P	H	I	N

Challenge #2

B	A	T	T	L	E	S	H	I	P	S

Challenge #3

1.	2.	3.	4.	5.	6.
B	O	V	I	N	E

7.	8.	9.	10.	11.	12.
S	P	H	E	R	E

13.	14.	15.	16.	17.	18.
N	O	R	M	A	L

Challenge #4

A	T	T	I	C

B	E	A	C	H

Challenge #5

1	2	3	4	5	6	7
P	H	O	T	O	S	Y

8.	9	10	11	12	13	14
N	T	H	E	S	I	S

Challenge #6

#1	H	O	O	P

#2	D	U	C	K

#3	C	O	B	R	A

#4	F	O	R	T

©2018 Teaching in an Organized Mess

Challenge #1

1	Judy answered 85% of the questions correctly on her science test. Which fraction represents the number of questions she answered correctly?	$\frac{17}{20}$	$\frac{5}{8}$	$\frac{17}{25}$
2	In Bridget's math class, 3 out of 5 students are wearing tennis shoes. Which decimal represents the number of students wearing tennis shoes?	0.3	0.6	0.06
3	Wallace made 45 out of 50 free throws this basketball season. What percentage of free throws did Wallace make?	45%	85%	90%
4	Bethany is making 1 cup of purple paint by mixing red and blue paint. She uses 0.8 cups of red paint. Which percentage represents the part of the purple paint that is red?	0.8%	8%	80%
5	Derek planted a garden this spring, 12% of the garden is tomatoes. Which fraction is equivalent to the percent of the garden that is tomatoes?	$\frac{12}{10}$	$\frac{3}{25}$	$\frac{3}{20}$
6	Zoanne's puppy grew at a rate of 1.3 in the last year. Which percent represents the rate at which Zoanne's puppy grew?	13%	130%	1.3%
7	Miranda has earned 5% of the money she needs to buy a new bicycle. Which fraction is equivalent to 5%?	$\frac{5}{20}$	$\frac{5}{10}$	$\frac{1}{20}$

W	A	R	N	I	N	G
1	2	3	4	5	6	7

©2018 Teaching in an Organized Mess www.teachingwithstowe.blogspot.com

Challenge #1

8	Conner needed to save $50 for concert tickets. He saved $75 by the end of summer. Represent the part of money he saved as a percent.	66%	150%	50%
9	Oliver saved $55 to spend at the mall. He spent $22 on jeans. Represent the part of the money he did NOT spend as a decimal.	0.6	0.06	6%
10	A farmer planted 20 acres of crops. Three of the acres she planted are tomatoes. What percent represents the part of the crop that is tomatoes?	15%	3%	20%
11	Eli saves 18% of his income for emergencies. What fraction is equivalent to this percentage?	$\frac{18}{50}$	$\frac{9}{100}$	$\frac{9}{50}$
12	Nixon grew 1.125 inches last year. Represent this decimal as a fraction.	$1\frac{1}{8}$	$1\frac{5}{12}$	$1\frac{25}{50}$
13	Martin donated 42% of his toys to charity. Represent this percent as a decimal.	0.42	4.2	0.042
14	It rained 24 out of 30 days in April. Which percentage represents the number of days it rained in April?	125%	80%	24%

D	O	L	P	H	I	N
8	9	10	11	12	13	14

©2018 Teaching in an Organized Mess www.teachingwithstowe.blogspot.com

Challenge #2

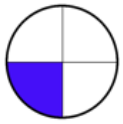
$\frac{3}{25}=15\%$	$\frac{6}{30}=5\%$	$\frac{4}{25}=0.16$	$\frac{5}{15}=0.3\overline{3}$
$\frac{7}{21}=7.21$	$\frac{5}{25}=12.5\%$	$\frac{5}{8}=62.5\%$	$\frac{4}{5}=80\%$
$\frac{3}{6}=0.50$	$\frac{3}{8}=0.375$	$\frac{6}{20}=0.3$	$\frac{1}{25}=0.4$
$\frac{7}{35}=20\%$	$\frac{9}{15}=0.6$	$\frac{2}{8}=0.4$	$\frac{4}{10}=2.5$
$\frac{8}{40}=0.05$	$\frac{3}{5}=60\%$	$\frac{3}{4}=0.75$	$\frac{1}{50}=0.2\%$

B A T T L E S H I P S

©2018 Teaching in an Organized Mess www.teachingwithstowe.blogspot.com

Challenge #3

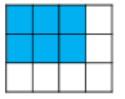
1. 25%



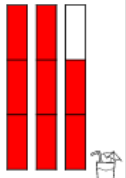
2. 0.75

3. $\frac{2}{5}$

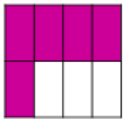
4. 50%



5. $2\frac{2}{3}$

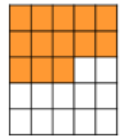


6. 0.625



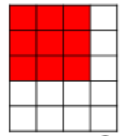
7. 100%

8. 0.52

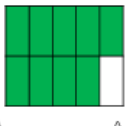


9. $\frac{1}{3}$

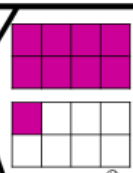
10. 45%



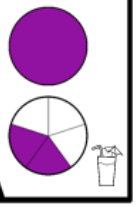
11. $\frac{9}{10}$



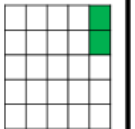
12. 1.125



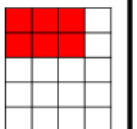
13. 140%



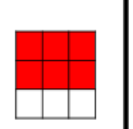
14. 0.08



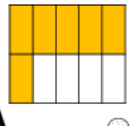
15. $\frac{3}{10}$



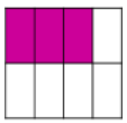
16. $66\frac{2}{3}\%$



17. 0.6



18. $\frac{3}{8}$



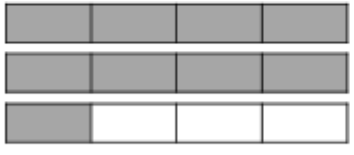
Challenge #4

Dan surveyed his classmates on their favorite school subject. The results are shown in the table.

Subject	Part of Votes
math	$\frac{3}{8}$
science	25%
social studies	$\frac{1}{4}$
reading	12.5%

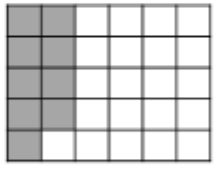
1. T The same percentage of students picked science and social studies as their favorite subject.
2. T 37.5% of students said math was their favorite subject
3. F The same percentage of students picked math and reading as their favorite subject.

Use the model below the determine if the statements are true or false.



7. T The model shows $\frac{9}{4}$ shaded.
8. F 75% of the model is unshaded.
9. F The model shows 2.1 shaded.

The shaded part of the model below shows the part of Jamal's allowance that he is saving for college.



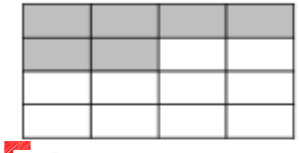
4. T Jamal saves 30% of his income.
5. F Jamal saves $\frac{9}{10}$ of his income.
6. T 0.7 of Jamal's income does not go to savings for college.

A	T	T	I	C

©2018 Teaching in an Organized Mess
www.teachingwithstowe.blogspot.com

Challenge #4

Use the model below the determine if the statements are true or false.

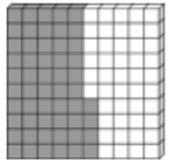


10. F 60% of the model is shaded.
11. T 0.625 of the model is unshaded.
12. T $\frac{3}{8}$ of the model is shaded.

Asia has completed a budget for her earnings. The table below shows what part of her income she spends for each category.

Category	Part of Income
rent	$\frac{3}{20}$
food	0.1
savings	37.5%
fun spending	$\frac{1}{8}$
other bills	0.25

Use the model below the determine if the statements are true or false.

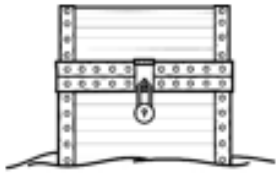


13. T 54% of the model is shaded.
14. T $\frac{27}{50}$ of the hundredths grid is shaded.
15. F 0.27 of the hundredths grid is shaded.

16. F Asia spends the same amount on rent and food every month
17. T Asia spends 12.5% of her income on fun spending.
18. F Asia spends 0.3 of her income on rent.

B	E	A	C	H

©2018 Teaching in an Organized Mess
www.teachingwithstowe.blogspot.com



Challenge #5

1. Marcus ate 15% of a package of cookies. What decimal represents the part of the cookies he did eat? 0.15

2. April's free throw percentage for the season was 65%. What fraction of free throws did she make? $\frac{13}{20}$

3. Max read 135 pages of his book which is $\frac{3}{8}$ of the book. What percentage of the book did he read? 37.5%

4. Gavin has $\frac{2}{3}$ a cup of butter. Which decimal represents how much butter he has? $0.6\overline{6}$

5. Teddy has a coupon for $\frac{1}{5}$ off the price of shoes. What percentage off will he receive? 20%

6. In Ms. Yang's class, 45% of the students play an instrument. Represent this value as a decimal. 0.45

7. Sales tax is 8% of the total cost. Represent this value as a fraction. $\frac{4}{25}$

8. Lyndsey grew $1\frac{1}{4}$ feet in the last 2 years. Represent this value as a decimal. 1.25

9. $\frac{1}{3}$ of Ms. Bank's class is left handed. What percentage of her class is left handed? $33\frac{1}{3}\%$

10. A jacket is 35% off the original price. What decimal is equivalent to 35%? 0.35

11. Seth has 9 out of 12 questions correct on his test. What percent correct did he get on his test? 75%

12. Kelly ran for student council for her class. She received 55% of the vote. What fraction is equivalent to 55%? $\frac{11}{20}$

13. Julie ate $\frac{1}{8}$ of her pizza last night. What percent represents how much she has left? 87.5%

14. Trevor's bean plant grew at a rate of 1.45 in the last month. What percentage is equivalent to that rate? 145%

P	H	O	T	O	S	Y	N	T	H	E	S	I	S
1	2	3	4	5	6	7	8	9	10	11	12	13	14

©2018 Teaching in an Organized Mess www.teachingwithstowe.blogspot.com

Challenge #6

Find all numbers that are equivalent to $\frac{3}{8}$

H 37.5%	O $\frac{6}{16}$	~~Z 0.37~~
O 0.375	~~R 375%~~	P $\frac{9}{24}$
~~L $\frac{8}{3}$~~	~~S $2\frac{2}{3}$~~	~~E 3.75~~

H O O P

Find all numbers that are equivalent to $\frac{1}{25}$

~~E 25%~~	~~N $\frac{2}{25}$~~	D 4%
~~I 0.4~~	~~R 40%~~	U $\frac{2}{50}$
C $\frac{4}{100}$	~~S 0.25~~	K 0.04

D U C K

Find all numbers that are equivalent to $2\frac{2}{3}$

~~P 2.60%~~	C $\frac{16}{6}$	~~E 1.5~~
~~W 0.375~~	O 266.6%	B $\frac{24}{9}$
R $\frac{8}{3}$	~~U $\frac{3}{8}$~~	A $2.6\overline{6}$

C O B R A

Find all numbers that are equivalent to $\frac{9}{20}$

F 0.45	O $\frac{18}{40}$	~~R 2.22~~
~~U 0.045~~	~~I 4.5%~~	R $\frac{45}{100}$
~~L $\frac{9}{10}$~~	~~S 0.45%~~	T 45%

F O R T

©2018 Teaching in an Organized Mess

www.teachingwithstowe.blogspot.com