Thursday 16th April
Understanding Percentages

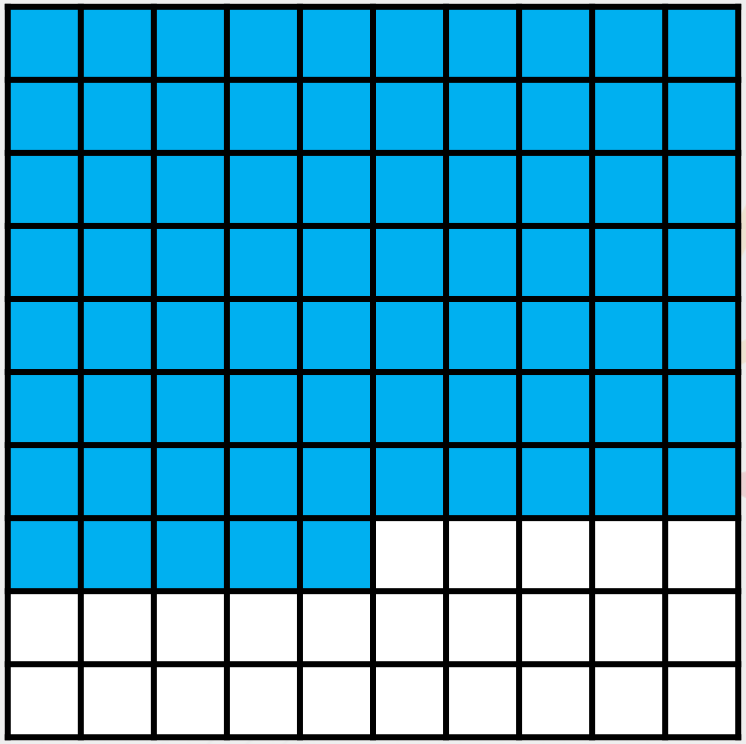
Introduction

Circle the fraction and decimal which match the picture.

$\frac{70}{100}$

0.75

$\frac{30}{100}$



0.34

$\frac{3}{4}$

0.7

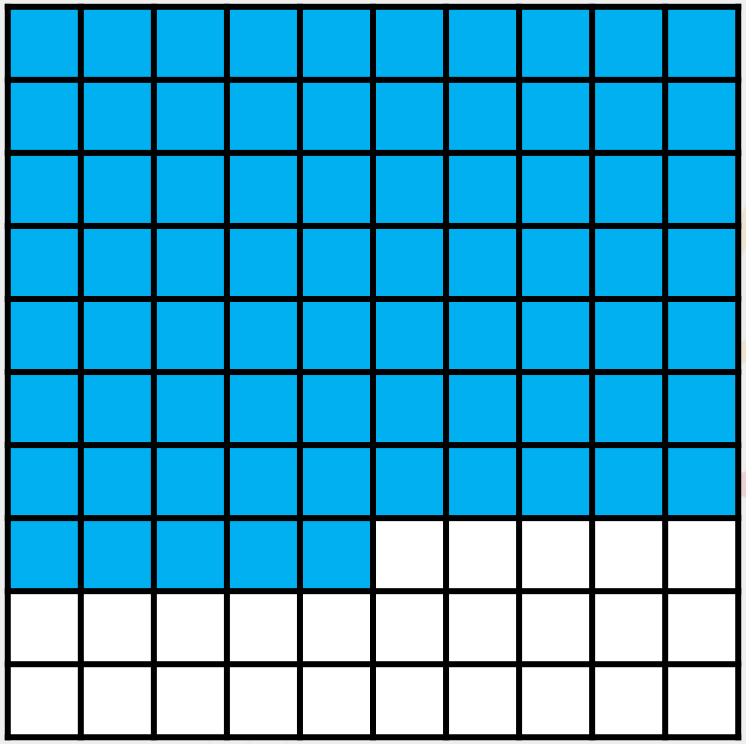
Y5

Circle the fraction and decimal which match the picture.

$\frac{70}{100}$

0.75

$\frac{30}{100}$



0.34

$\frac{3}{4}$

0.7

Y5

Remember the whole shape = 100%

There are only 10 pieces but the whole thing is equal to 100%.

So how much would each piece be as a percentage?

100 divided by 10 will give you each piece.

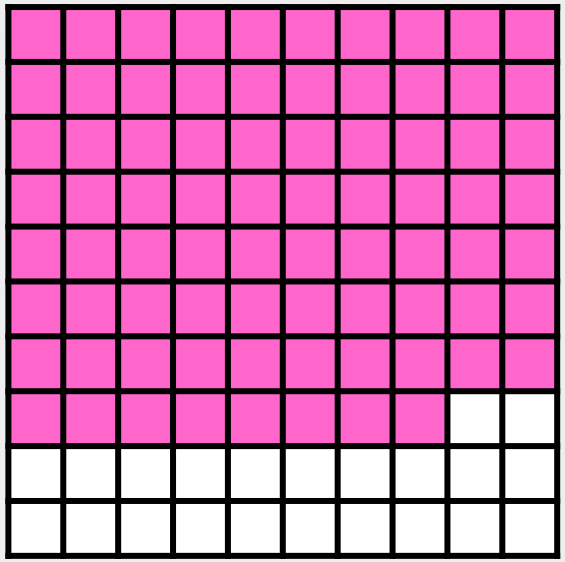
If there are 100 pieces and 45 are coloured that is easy = 45%

or the fraction 45/100 which = the decimal 0.45 which is 45%

Match the grids to their percentages.

A 

78%

B 

60%

C 

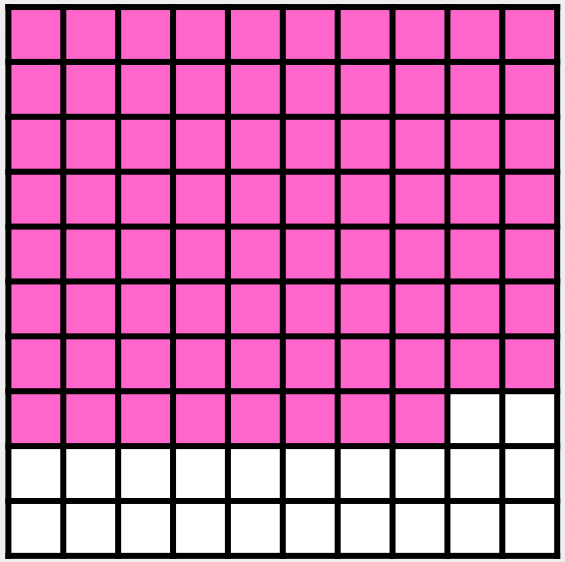
80%

Y5

Match the grids to their percentages.

A

B



C

78%

60%

80%

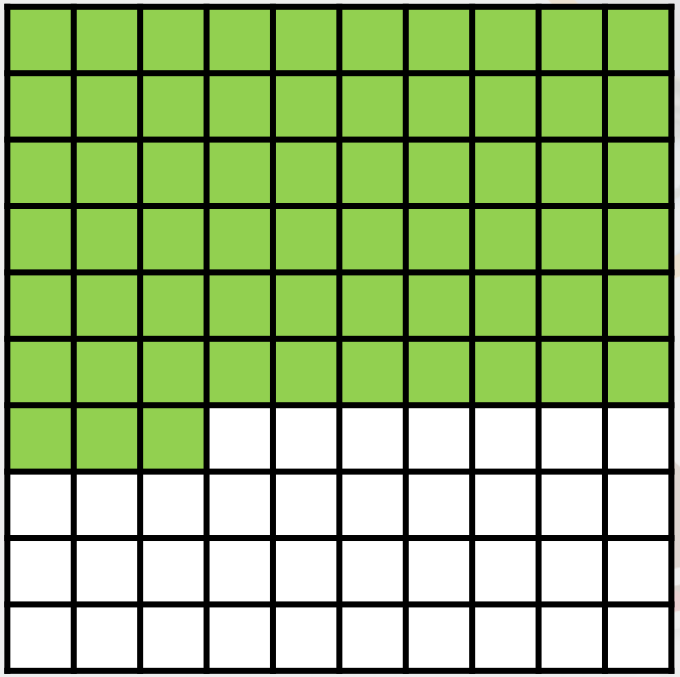
Y5

Varied Fluency 2

Write the percentage represented by the grids below.

A

B



Y5

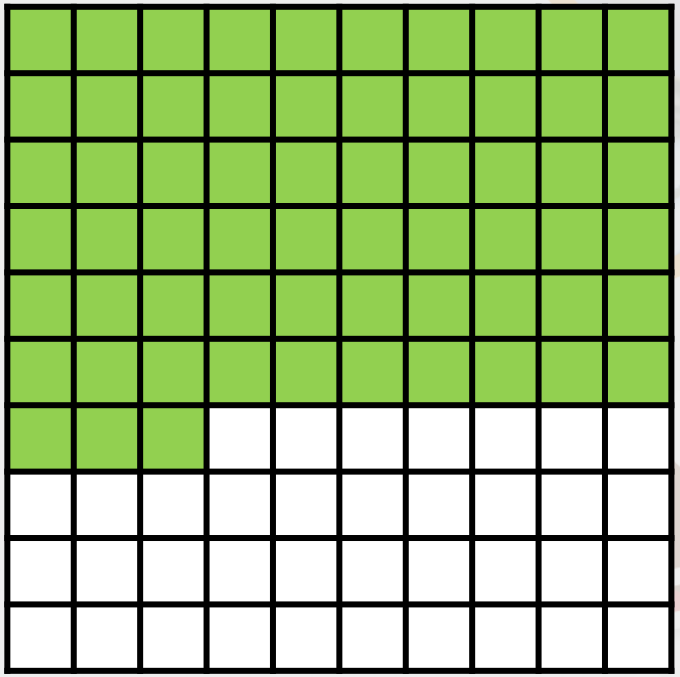
Varied Fluency 2

Write the percentage represented by the grids below.

A

90%

B



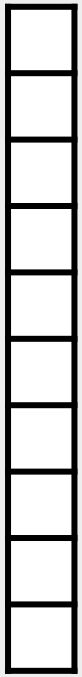
63%

Y5

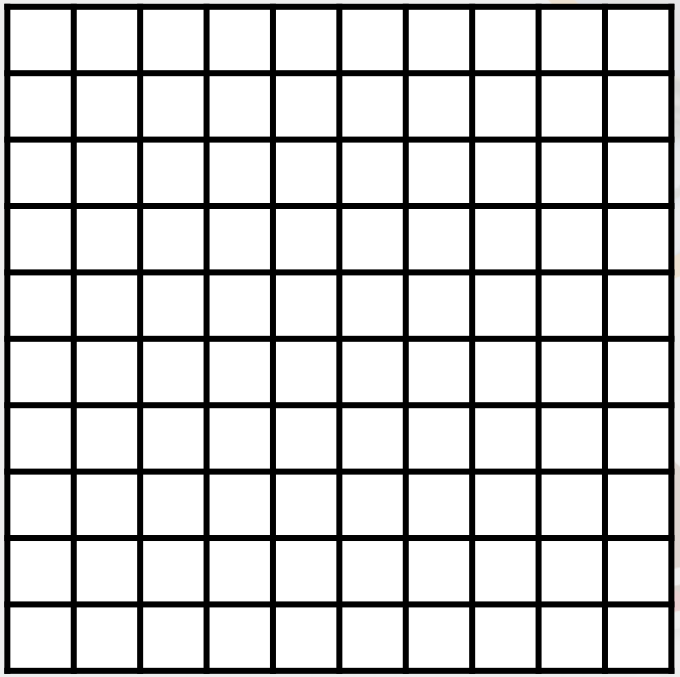
Varied Fluency 3

Represent 40% on the grids below.

A



B

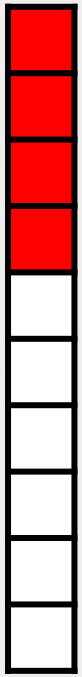


Y5

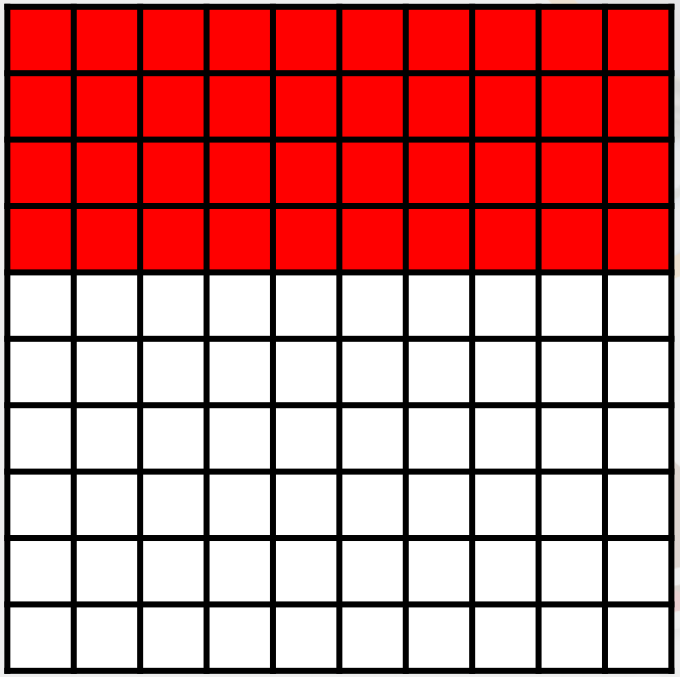
Represent 40% on the grids below.

Various possible answers, for example:

A

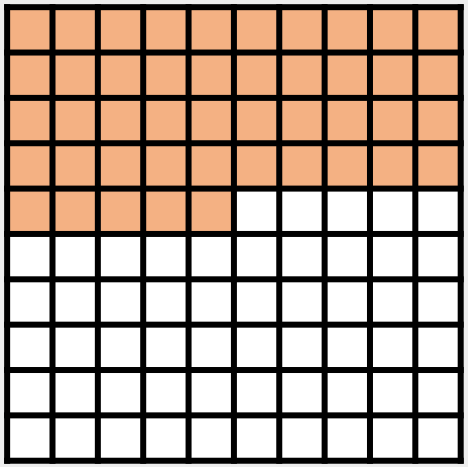


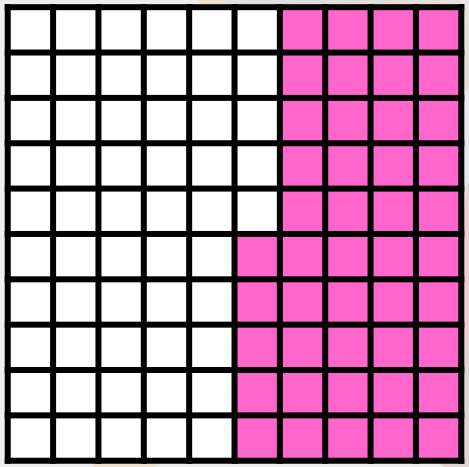
B



Reasoning 1

Circle the odd one out.

A 

B 

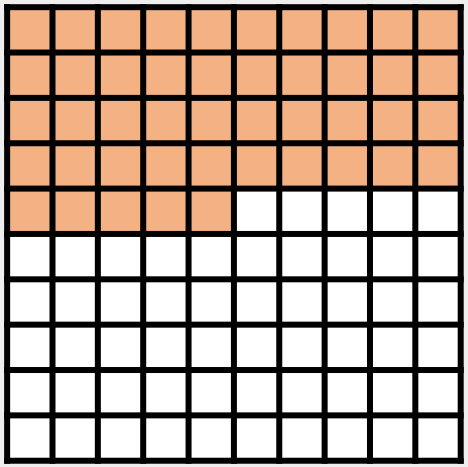
C 

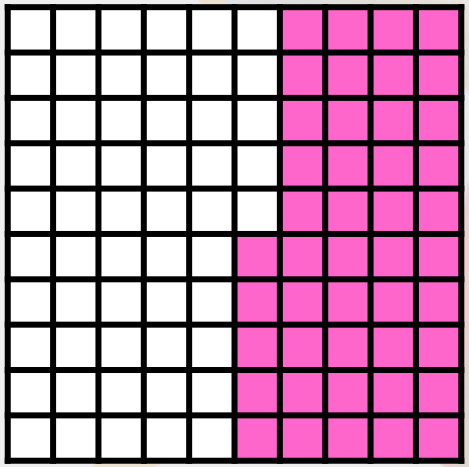
D 45%

Explain your reasoning.

Y5

Circle the odd one out.

A 

B 

C 

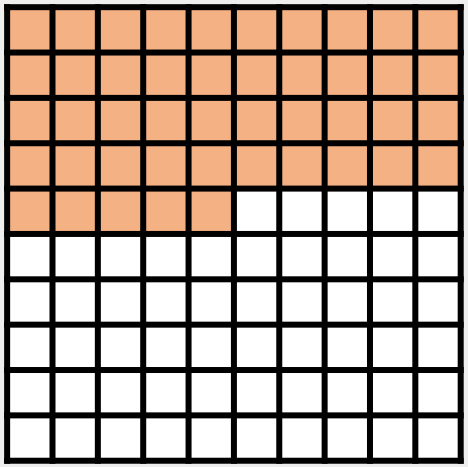
D 45%

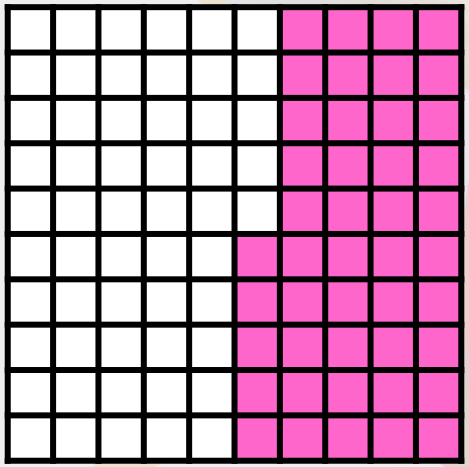
Explain your reasoning.

C is the odd one out because…

Reasoning 1

Circle the odd one out.

A 

B 

C 

D 45%

Explain your reasoning.

C is the odd one out because it represents 50%.
A, B and D represent 45%.

Y5

Remember to convert all the statements to the same form either fractions or decimals.

Example

33 parts of 100 =

33/100 0.33 or 33%

Put the cards in order from largest to smallest.

53 parts per 100	35%	4 parts out of 10
61%	7 parts per 10	16 parts out of 100

Problem Solving 1

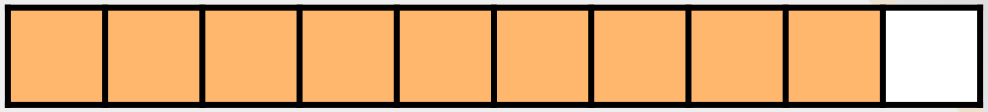
Put the cards in order from largest to smallest.

7 parts per 10	61%	53 parts per 100	4 parts out of 10	35%	16 parts out of 100

Y5

Reasoning 2

Alia and Ben are shown a bar model.



Alia says,

9% is shaded

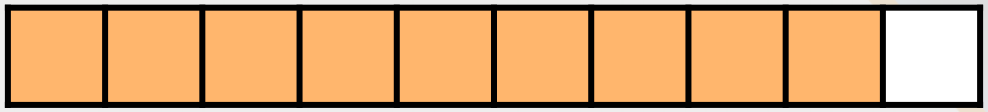
Ben says,

90% is shaded

Who is correct? Convince me.

Y5

Alia and Ben are shown a bar model.



Alia says,

9% is shaded

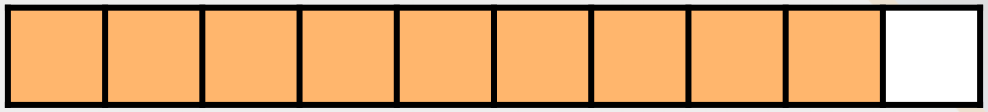
Ben says,

90% is shaded

Who is correct? Convince me.
Ben is correct because…

Reasoning 2

Alia and Ben are shown a bar model.



Alia says,

9% is shaded

Ben says,

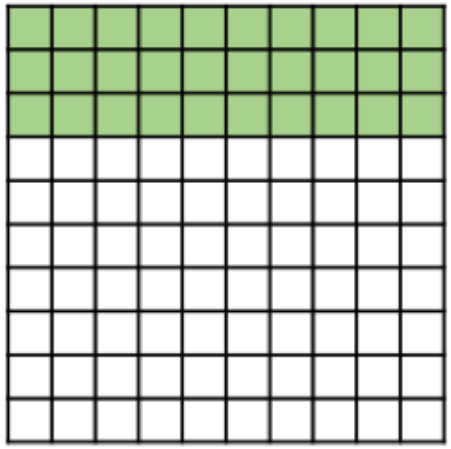
90% is shaded

Who is correct? Convince me.

Ben is correct because the bar model is split into 10 parts.
Percentages are the number of parts out of 100 so
9 needs to be multiplied by 10 to find the percentage.

Developing

1a. Match the grid to the correct percentage.

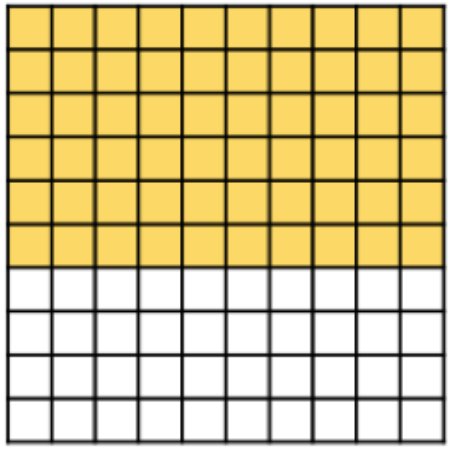


40%

50%

30%

1b. Match the grid to the correct percentage.



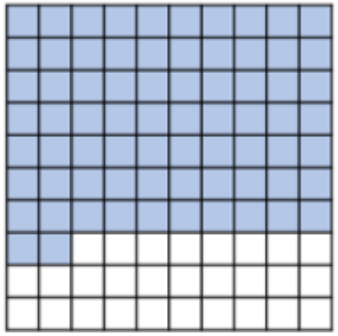
50%

60%

70%

2a. True or false?

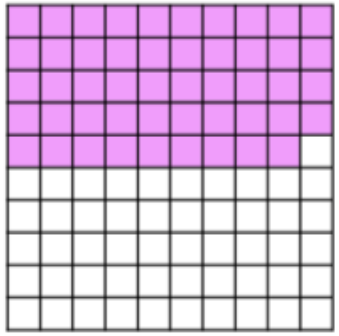
The grid below represents 70%.



5 VF

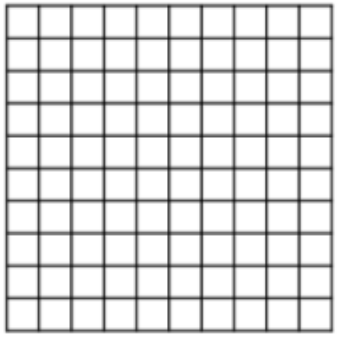
2b. True or false?

The grid below represents 41%.

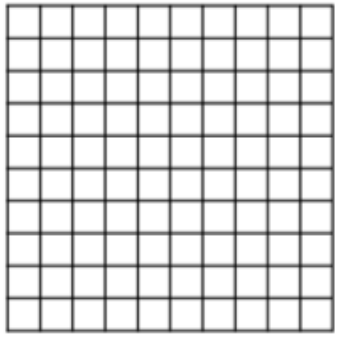


5 VF

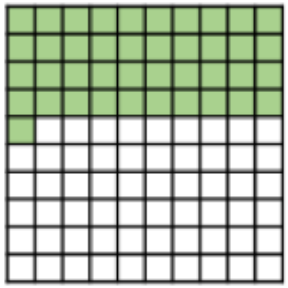
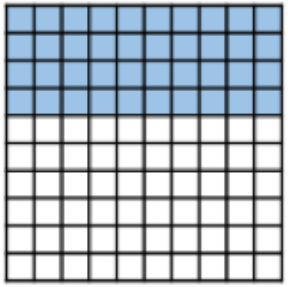
3a. Represent 50% on the grid below.



3b. Represent 90% on the grid below.



1a. Circle the odd one out.

A  B 

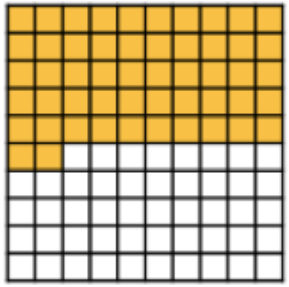
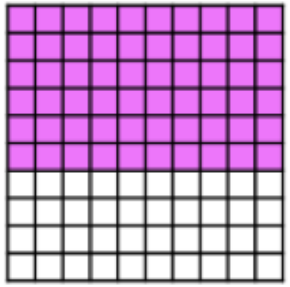
C 41%

Explain your reasoning.

D

5 R

1b. Circle the odd one out.

A  B 

C 60%

Explain your reasoning.

D

5 R

2a. Put the cards in order from smallest to largest.

35 parts per 100	5%	70 parts out of 100
50%	10%	90 parts per 100

2b. Put the cards in order from largest to smallest.

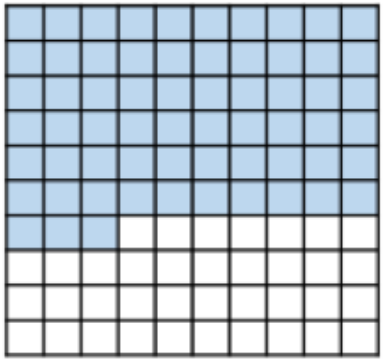
20 parts per 100	15%	80 parts out of 100
40%	75%	60 parts per 100

Expected

4a. Match the grids to their percentages.

A 

70%

B 

60%

C 

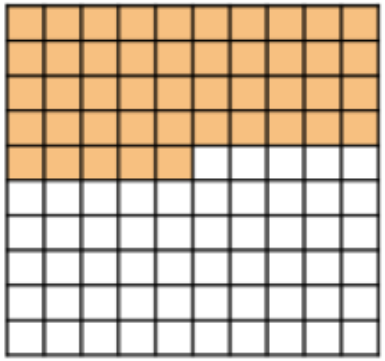
63%

5 VF

4b. Match the grids to their percentages.

A 

40%

B 

50%

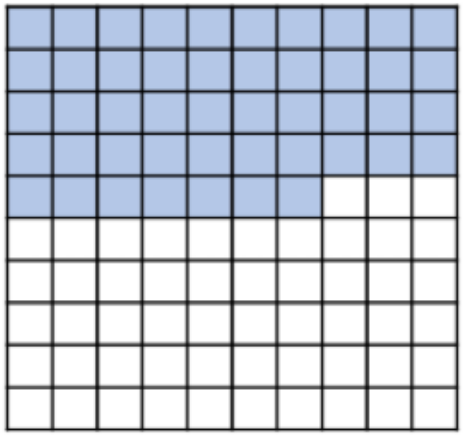
C 

45%

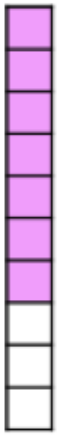
5 VF

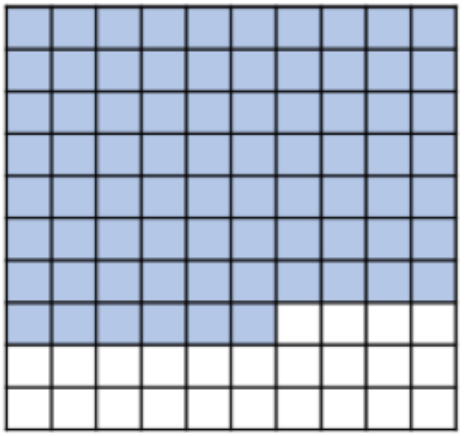
5a. Write the percentage represented by the grids below.

A 

B 

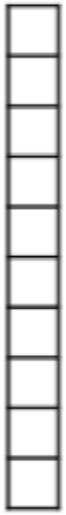
5b. Write the percentage represented by the grids below.

A 

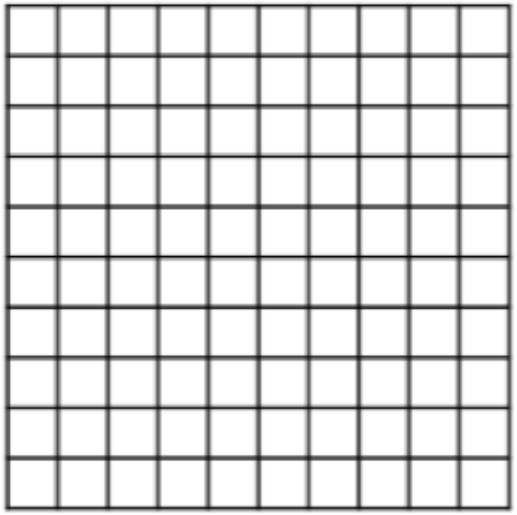
B 

6a. Represent 80% on the grids below.

A



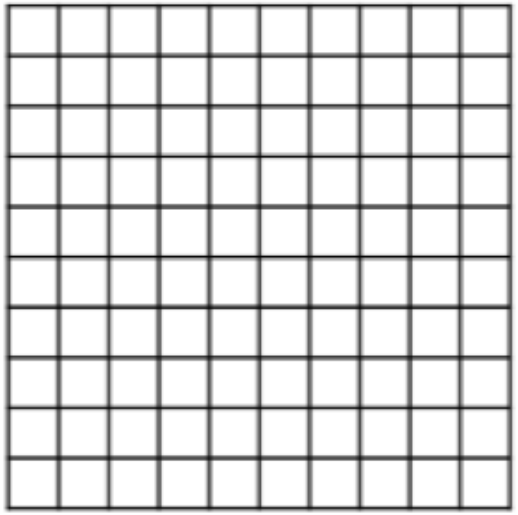
B



6b. Represent 60% on the grids below.

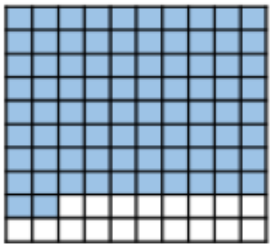
A

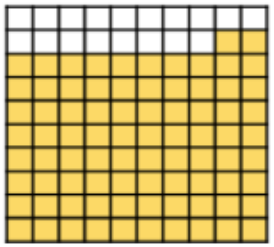
B



Greater Depth

4a. Circle the odd one out.

A 

B 

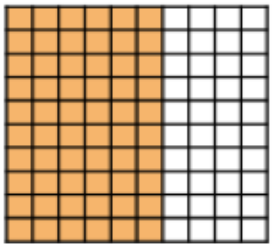
C 

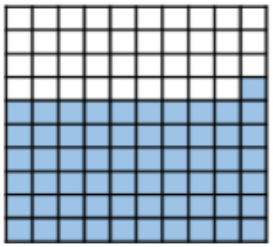
D 82%

Explain your reasoning.

5 R

4b. Circle the odd one out.

A 

B 

C 

D 60%

Explain your reasoning.

5 R

5a. Put the cards in order from smallest to largest.

51 parts per 100	84%	6 parts out of 10
27%	2 parts per 10	79 parts out of 100

5b. Put the cards in order from largest to smallest.

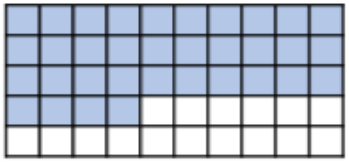
64 parts per 100	38%	7 parts out of 10
90%	5 parts per 10	91 parts out of 100

Greater Depth

7a. Match the grids to their percentages.

A 

68%

B 

25%

C 

40%

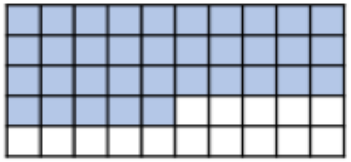
GD

5 VF

7b. Match the grids to their percentages.

A 

70%

B 

60%

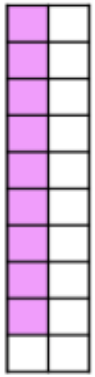
C 

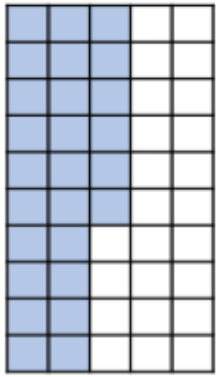
35%

GD

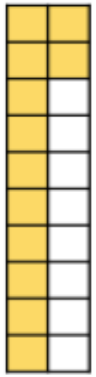
5 VF

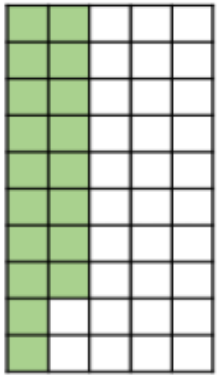
8a. Write the percentage represented by the grids below.

A 

B 

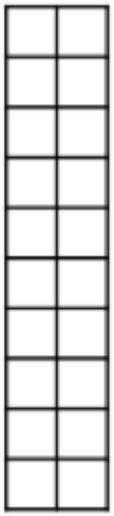
8b. Write the percentage represented by the grids below.

A 

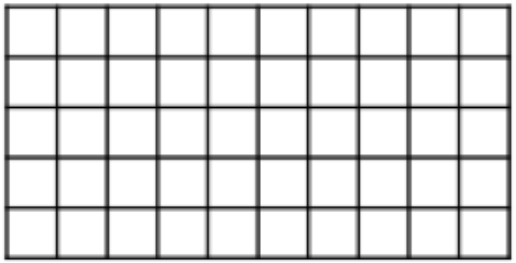
B 

9a. Represent 70% on the grids below.

A

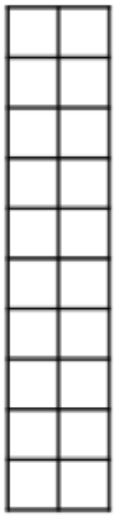


B

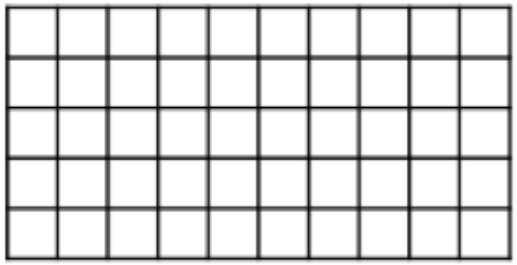


9b. Represent 30% on the grids below.

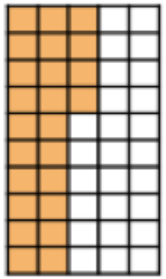
A

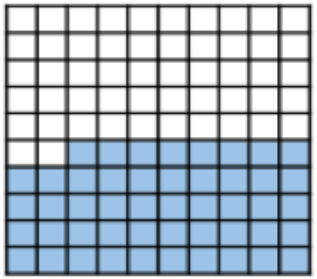


B



7a. Circle the odd one out.

A 

B 

C 

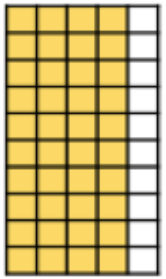
D 48%

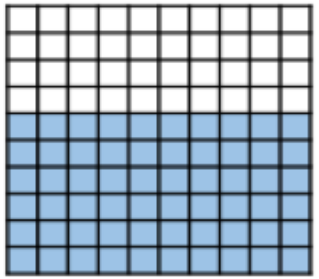
Explain your reasoning.

GD

5 R

7b. Circle the odd one out.

A 

B 

C 

D 60%

Explain your reasoning.

GD

5 R

8a. Put the cards in order from smallest to largest.

14 parts per 50	51%	11 parts out of 20
27%	6 parts per 20	4 parts out of 10

8b. Put the cards in order from largest to smallest.

15 parts per 50	59%	4 parts out of 20
32%	7 parts per 20	6 parts out of 10