

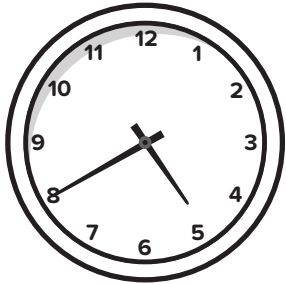
Big Maths Beat That!: Teacher Notes

SAFE Challenge 12			
	Step Location in the SAFE framework		Title of Step
	Progress Drive	Step No.	
Q1	Amounts: Amounts of Time	22	I know how many days in each month, year and leap year
Q2	Amounts: Amounts of Time: Telling the Time	9	I can say how long until o'clock
Q3	Amounts: Amounts of Time: Telling the Time	11	I can tell the time to the nearest minute
Q4	Amounts: Amounts of Time: Telling the Time	15	I can convert time from analogue to 24-hour clock
Q5	Amounts: Amounts of Turn	13	I can use acute and obtuse to accurately describe properties of shapes
Q6	Fractions: Fractions of a Whole	14	I know any fraction equal to 1
Q7	Fractions: Fractions of a Set	9	I can find fractions of amounts using my tables (1 part)
Q8	Fractions: Fractions of a Set	10	I can find fractions of amounts using my tables (2 or more parts)
Q9	Fractions: Fractions: Calculation	2	I can solve addition calculations with fractions
		3	I can solve subtraction calculations with fractions
Q10	Dangerous Maths: Algebra	4	I can use a two-step function machine

1

How many days are in January? _____ days

2



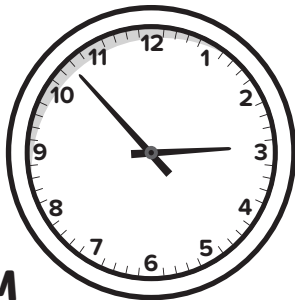
- 5 to 5
- 20 past 8
- 20 to 5

3



Write this time on the digital clock using 12 hour notation

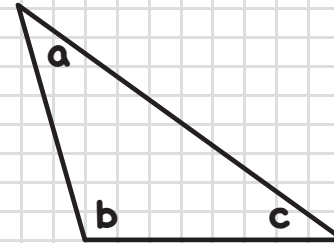
4



PM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$$\frac{4}{5} \quad \frac{11}{11} \quad \frac{11}{10}$$

7

$$\frac{1}{4} \text{ of } 24 =$$

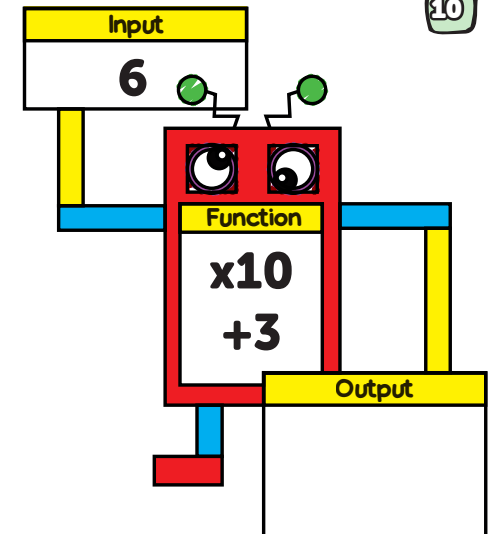
8

$$\frac{3}{4} \text{ of } 24 =$$

9

$$\frac{3}{8} + 4 + \frac{2}{8} =$$

10



MY LAST SCORE?!

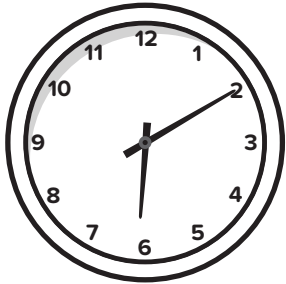
HAVE I BEAT THAT?!



1

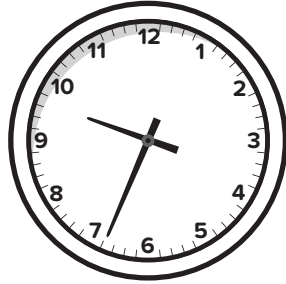
How many days are in March? _____ days

2



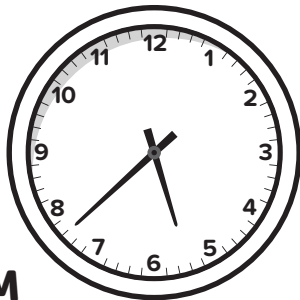
- 10 to 2
- 10 past 6
- quarter to 4

3



Write this time on the digital clock using 12 hour notation

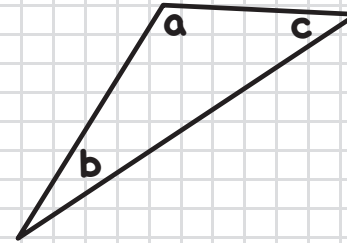
4



AM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$$\frac{6}{7} \quad \frac{5}{8} \quad \frac{9}{9}$$

7

$$\frac{1}{3} \text{ of } 18 =$$

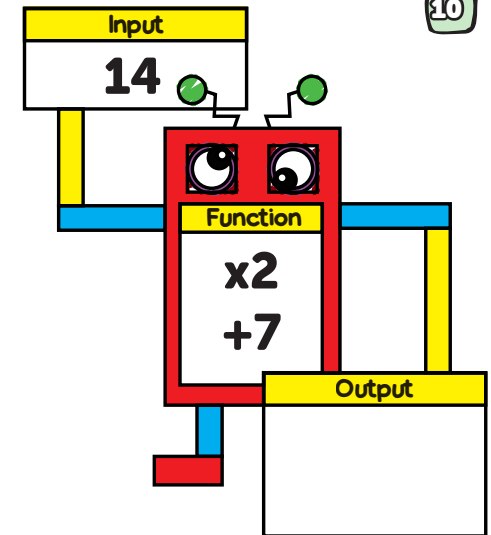
8

$$\frac{2}{3} \text{ of } 21 =$$

9

$$\frac{1}{7} + 2 + \frac{4}{7} =$$

10



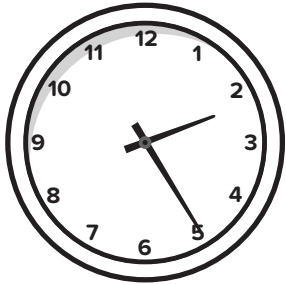
MY LAST SCORE?!

HAVE I BEAT THAT?!

1

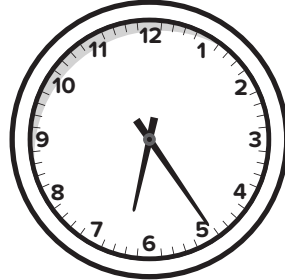
How many days are in a year? _____ days

2



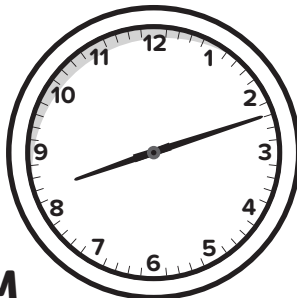
- 25 past 2
 20 past 3
 10 to 9

3



Write this time on the digital clock using 12 hour notation

4



PM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$$\frac{8}{8} \quad \frac{10}{12} \quad \frac{4}{11}$$

7

$$\frac{1}{4} \text{ of } 36 =$$

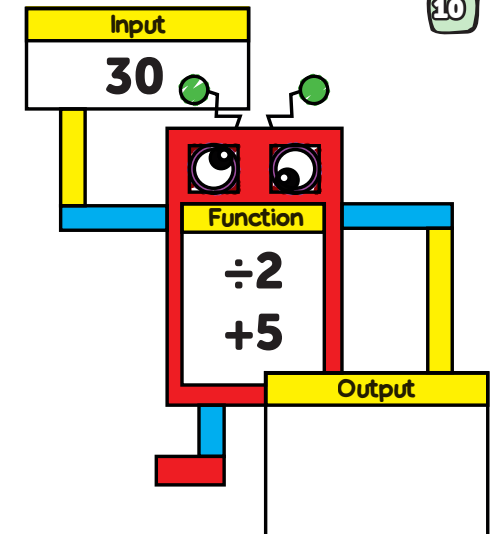
8

$$\frac{3}{4} \text{ of } 32 =$$

9

$$\frac{1}{9} + \frac{4}{9} + \frac{2}{9} =$$

10



MY LAST SCORE?!

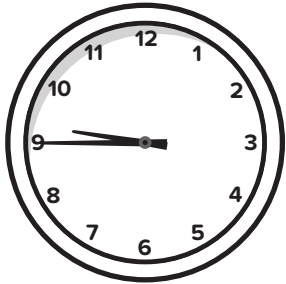
HAVE I BEAT THAT?!



1

How many days are in September? _____ days

2



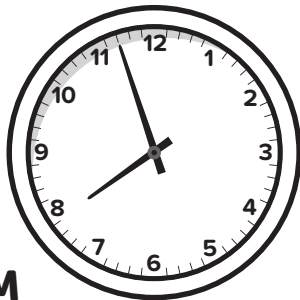
- quarter to 6
- quarter past 9
- quarter to 10

3



Write this time on the digital clock using 12 hour notation

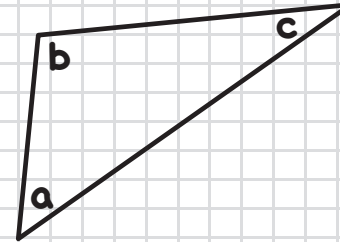
4



AM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$$\frac{13}{15} \quad \frac{13}{13} \quad \frac{3}{9}$$

7

$$\frac{1}{3} \text{ of } 12 =$$

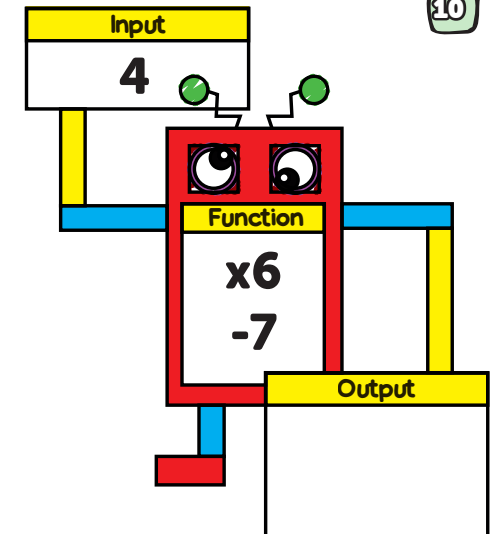
8

$$\frac{2}{3} \text{ of } 27 =$$

9

$$\frac{2}{9} + \frac{2}{9} + \frac{4}{9} =$$

10



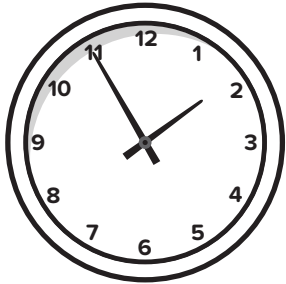
MY LAST SCORE?!

HAVE I BEAT THAT?!

1

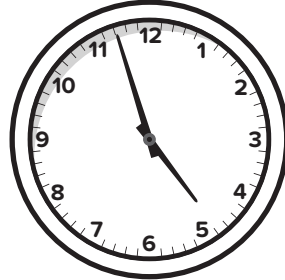
How many days are in May? _____ days

2



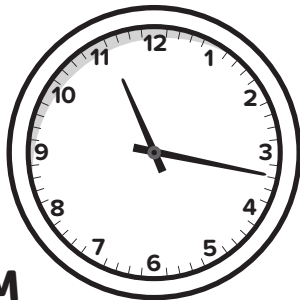
- 20 to 7
- 10 past 3
- 5 to 2

3



Write this time on the digital clock using 12 hour notation

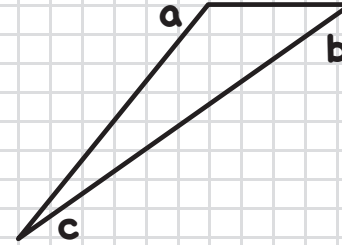
4



AM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$$\frac{11}{17} \quad \frac{2}{6} \quad \frac{7}{7}$$

7

$$\frac{1}{4} \text{ of } 16 =$$

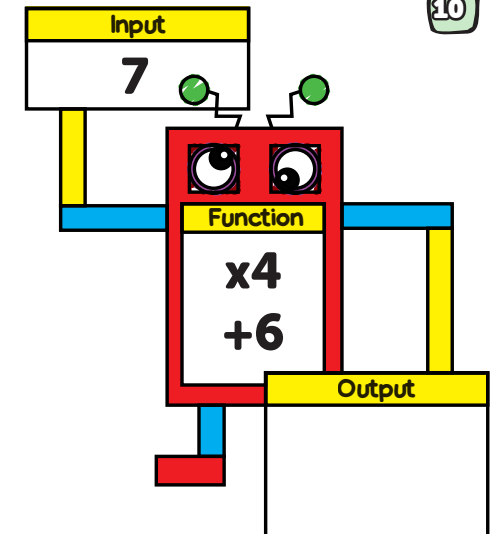
8

$$\frac{2}{4} \text{ of } 12 =$$

9

$$\frac{1}{5} + 4 + \frac{2}{5} =$$

10



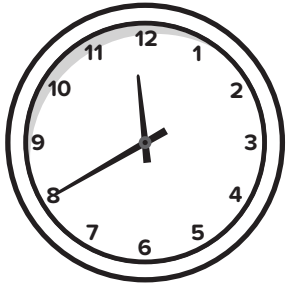
MY LAST SCORE?!

HAVE I BEAT THAT?!

1

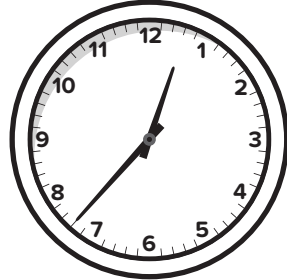
How many days are in June? _____ days

2



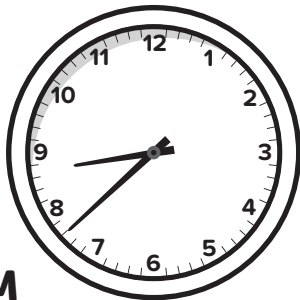
- 20 to 7
- 20 past 3
- 20 to 12

3



Write this time on the digital clock using 12 hour notation

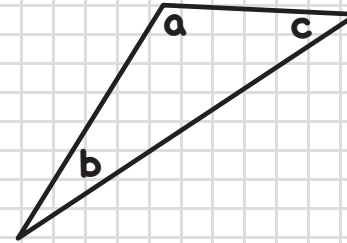
4



PM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$$\frac{16}{16} \quad \frac{4}{5} \quad \frac{6}{8}$$

7

$$\frac{1}{3} \text{ of } 9 =$$

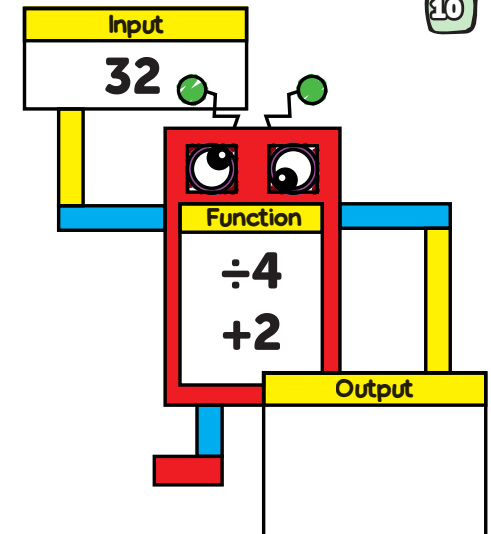
8

$$\frac{2}{3} \text{ of } 15 =$$

9

$$\frac{6}{7} - \frac{4}{7} - \frac{1}{7} =$$

10



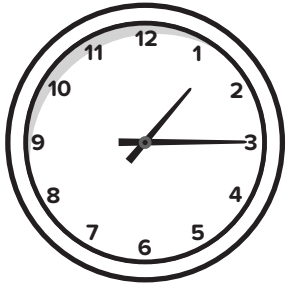
MY LAST SCORE?!

HAVE I BEAT THAT?!

1

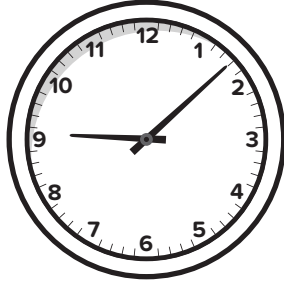
How many days are in a leap year? _____ days

2



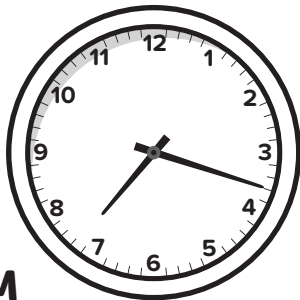
- quarter to 7
- quarter past 1
- 20 to 9

3



Write this time on the digital clock using 12 hour notation

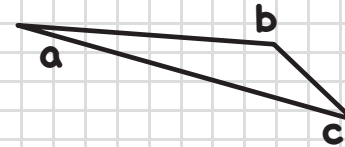
4



PM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$\frac{4}{9}$ $\frac{6}{6}$ $\frac{2}{12}$

7

$\frac{1}{4}$ of 20 =

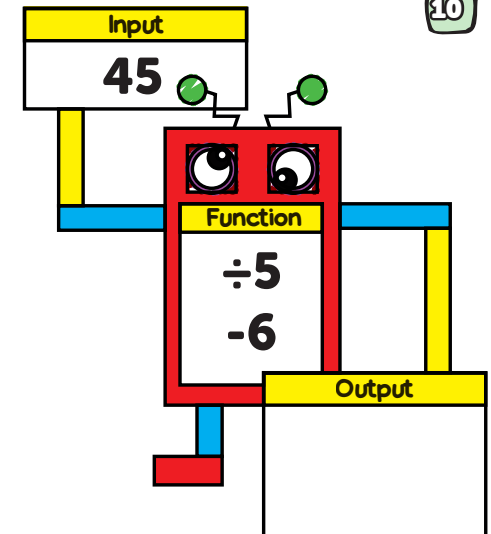
8

$\frac{3}{4}$ of 36 =

9

$\frac{2}{8} + \frac{2}{8} + \frac{1}{8} =$

10



MY LAST SCORE?!

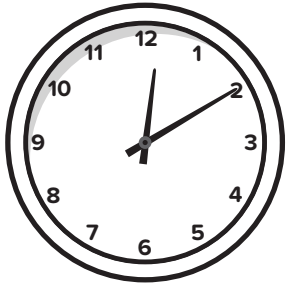
HAVE I BEAT THAT?!



1

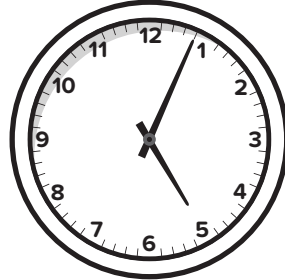
How many days are in October? _____ days

2



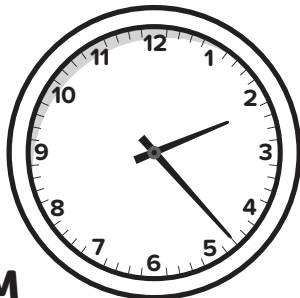
- 20 to 11
- 10 past 12
- 5 to 6

3



Write this time on the digital clock using 12 hour notation

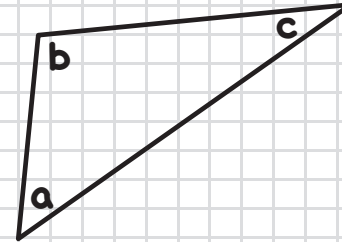
4



AM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$\frac{3}{4}$ $\frac{3}{7}$ $\frac{8}{8}$

7

$\frac{1}{4}$ of 8 =

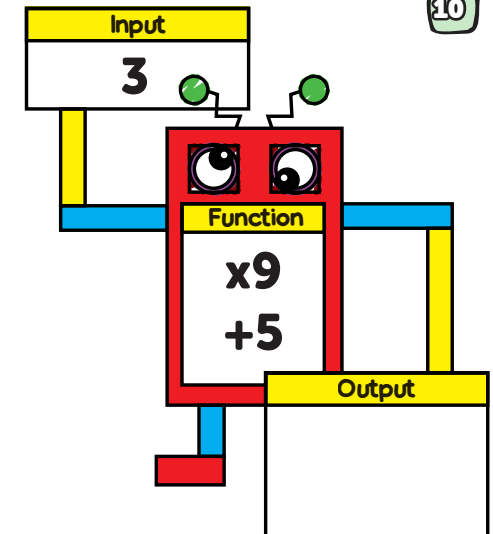
8

$\frac{2}{3}$ of 18 =

9

$8 + \frac{4}{9} + \frac{2}{9} =$

10



MY LAST SCORE?!

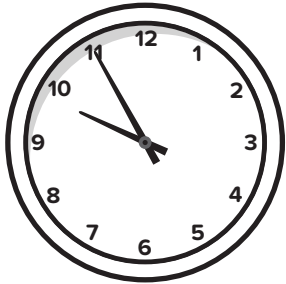
HAVE I BEAT THAT?!



1

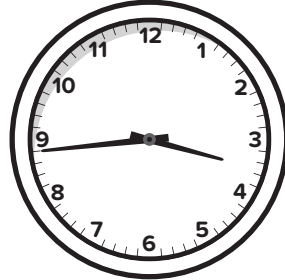
How many days are in April? _____ days

2



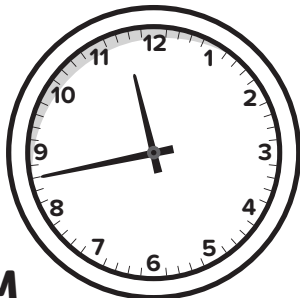
- 10 to 6
- 10 past 5
- 5 to 10

3



Write this time on the digital clock using 12 hour notation

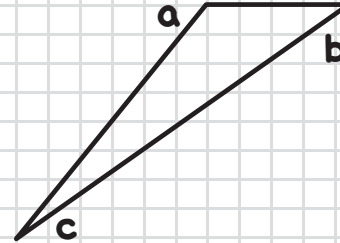
4



PM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$\frac{12}{12}$ $\frac{2}{9}$ $\frac{1}{5}$

7

$\frac{1}{3}$ of 6 =

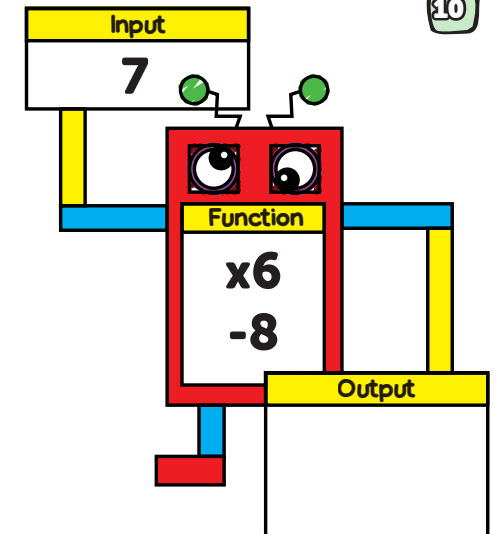
8

$\frac{3}{4}$ of 32 =

9

$\frac{2}{6} + \frac{1}{6} + \frac{2}{6} =$

10



MY LAST SCORE?!

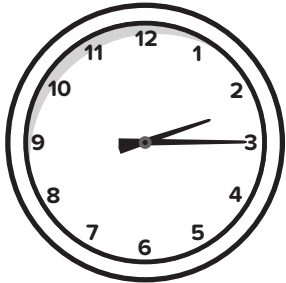
HAVE I BEAT THAT?!



1

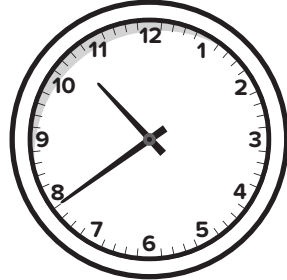
How many days are in February? _____ days

2



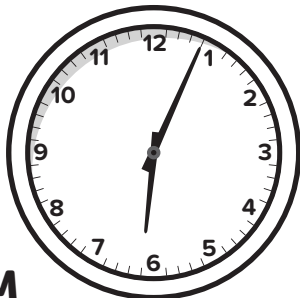
- quarter past 2
- 10 past 9
- 20 to 3

3



Write this time on the digital clock using 12 hour notation

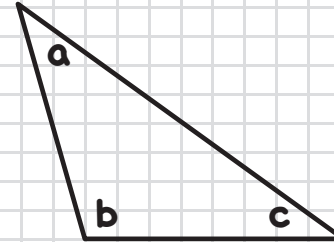
4



PM

Write this time on the digital clock using 24 hour notation

5



Which angle is obtuse?

6

Which fraction is equal to 1?

$\frac{4}{6}$ $\frac{15}{15}$ $\frac{3}{11}$

7

$\frac{1}{4}$ of 12 =

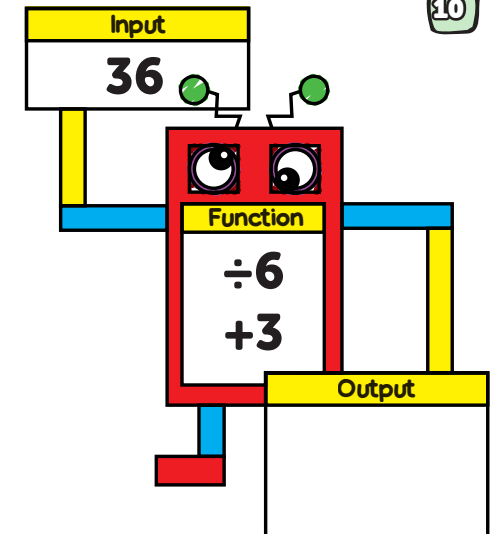
8

$\frac{2}{3}$ of 21 =

9

$2 + \frac{4}{8} + \frac{2}{8} =$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!

ANSWERS

SAFE 12

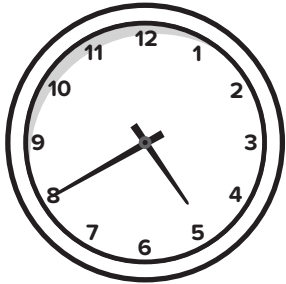
SET: 1

/10

1

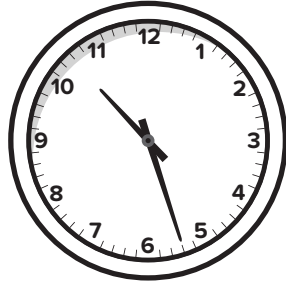
How many days are in January? 31 days

2



- 5 to 5
- 20 past 8
- 20 to 5

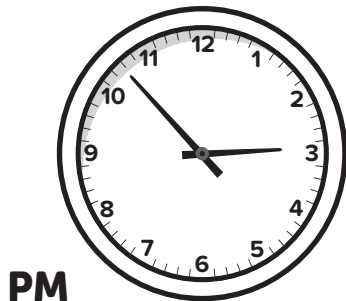
3



Write this time on the digital clock using 12 hour notation

10:27

4

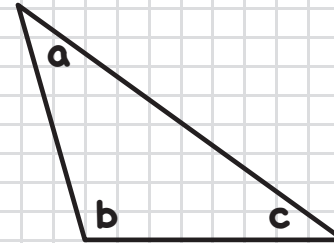


PM

Write this time on the digital clock using 24 hour notation

14:53

5



Which angle is obtuse?

b

6

Which fraction is equal to 1?

$\frac{4}{5}$ $\frac{11}{11}$ $\frac{11}{10}$

7

$\frac{1}{4}$ of 24 =

6

8

$\frac{3}{4}$ of 24 =

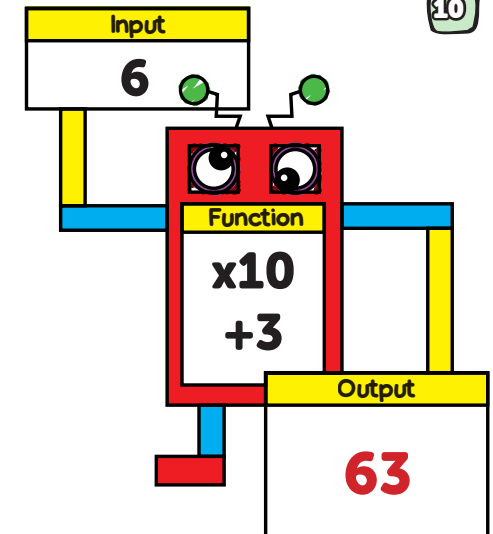
18

9

$\frac{3}{8} + 4 + \frac{2}{8} =$

4 $\frac{5}{8}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

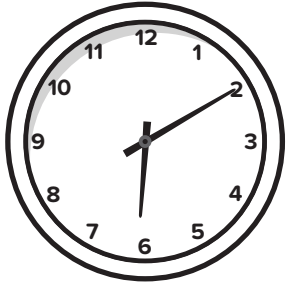
SET: 2

/10

1

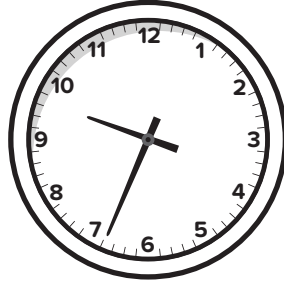
How many days are in March? 31 days

2



- 10 to 2
- 10 past 6
- quarter to 4

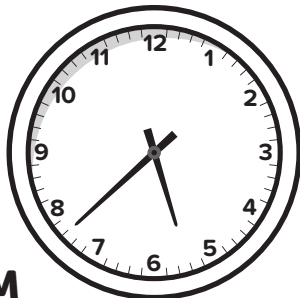
3



Write this time on the digital clock using 12 hour notation

09:34

4

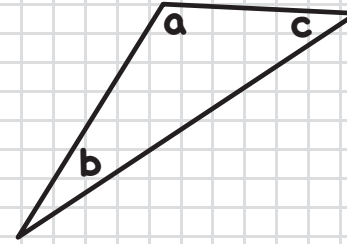


AM

Write this time on the digital clock using 24 hour notation

05:38

5



Which angle is obtuse?

a

6

Which fraction is equal to 1?

$$\frac{6}{7}$$

$$\frac{5}{8}$$

$$\frac{9}{9}$$

7

$\frac{1}{3}$ of 18 =

6

8

$\frac{2}{3}$ of 21 =

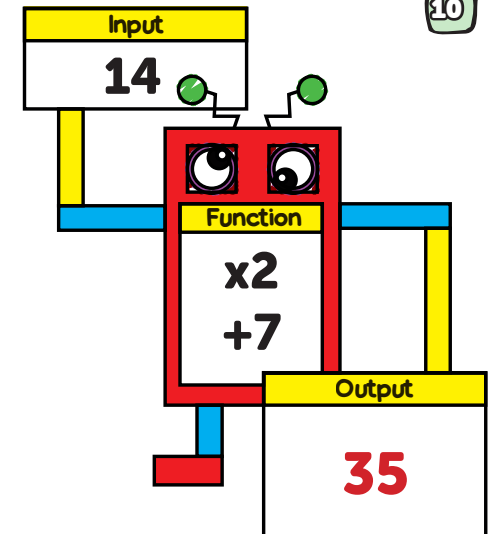
14

9

$\frac{1}{7} + 2 + \frac{4}{7} =$

2 $\frac{5}{7}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

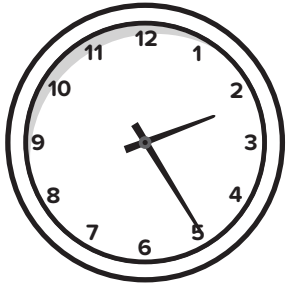
SET: 3

/10

1

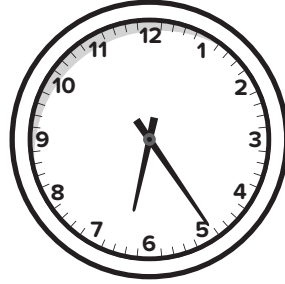
How many days are in a year? 365 days

2



- 25 past 2
- 20 past 3
- 10 to 9

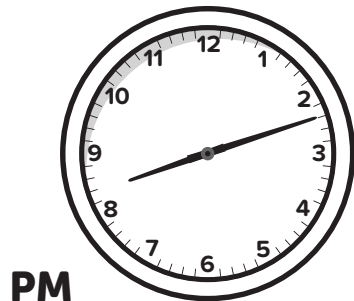
3



Write this time on the digital clock using 12 hour notation

06:24

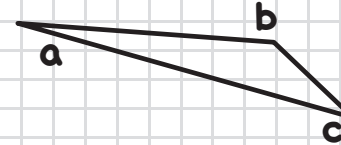
4



Write this time on the digital clock using 24 hour notation

20:12

5



Which angle is obtuse?

b

6

Which fraction is equal to 1?

$\frac{8}{8}$

$\frac{10}{12}$

$\frac{4}{11}$

7

$\frac{1}{4}$ of 36 =

9

8

$\frac{3}{4}$ of 32 =

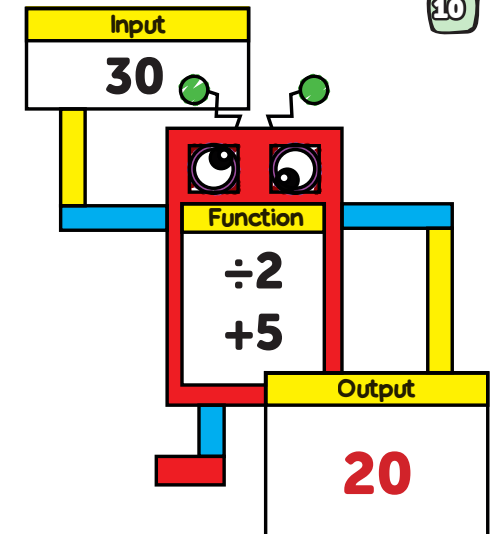
24

9

$\frac{1}{9} + \frac{4}{9} + \frac{2}{9} =$

$\frac{7}{9}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

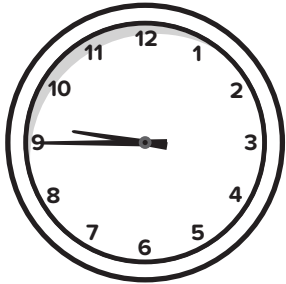
SET: 4

/10

1

How many days are in September? 30 days

2



- quarter to 6
- quarter past 9
- quarter to 10

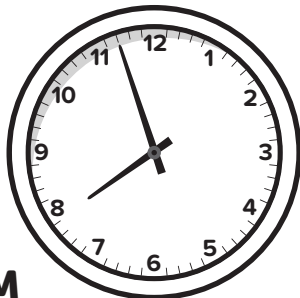
3



Write this time on the digital clock using 12 hour notation

04:18

4

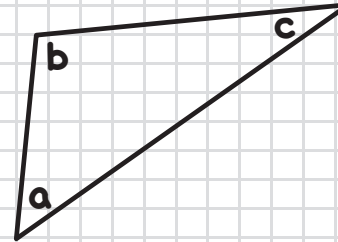


AM

Write this time on the digital clock using 24 hour notation

07:57

5



Which angle is obtuse?

b

6

Which fraction is equal to 1?

$\frac{13}{15}$ **$\frac{13}{13}$** $\frac{3}{9}$

7

$\frac{1}{3}$ of 12 =

4

8

$\frac{2}{3}$ of 27 =

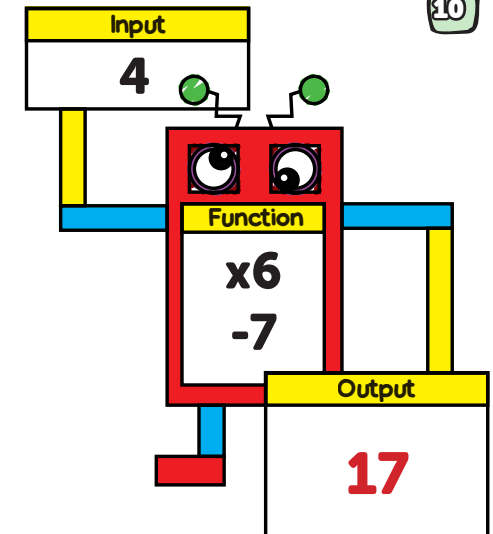
18

9

$\frac{2}{9} + \frac{2}{9} + \frac{4}{9} =$

$\frac{8}{9}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

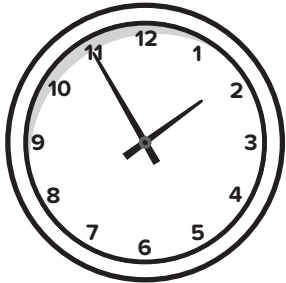
SET: 5

/10

1

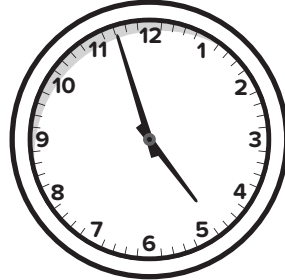
How many days are in May? 31 days

2



- 20 to 7
- 10 past 3
- 5 to 2

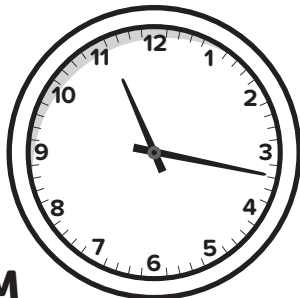
3



Write this time on the digital clock using 12 hour notation

04:57

4

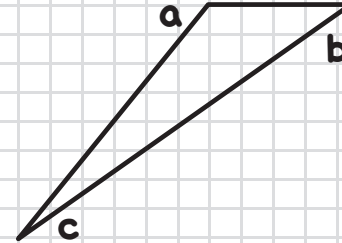


AM

Write this time on the digital clock using 24 hour notation

11:17

5



Which angle is obtuse?

a

6

Which fraction is equal to 1?

$\frac{11}{17}$

$\frac{2}{6}$

$\frac{7}{7}$

7

$\frac{1}{4}$ of 16 =

4

8

$\frac{2}{4}$ of 12 =

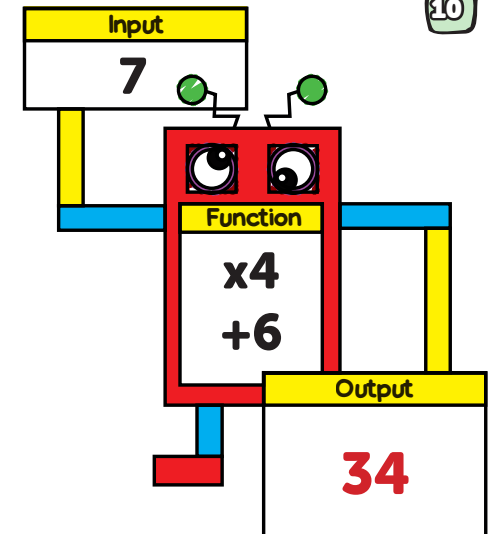
6

9

$\frac{1}{5} + 4 + \frac{2}{5} =$

$4\frac{3}{5}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

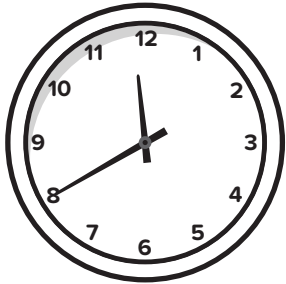
SET: 6

/10

1

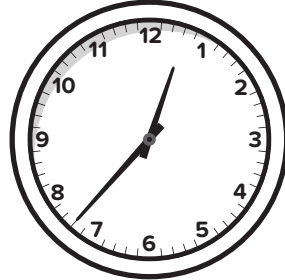
How many days are in June? 30 days

2



- 20 to 7
- 20 past 3
- 20 to 12

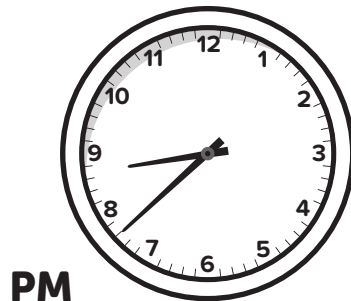
3



Write this time on the digital clock using 12 hour notation

12:37

4

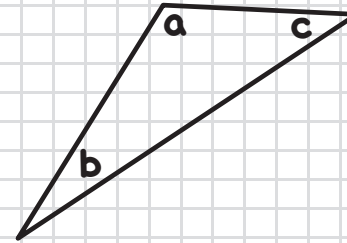


PM

Write this time on the digital clock using 24 hour notation

20:38

5



Which angle is obtuse?

a

6

Which fraction is equal to 1?

$\frac{16}{16}$

$\frac{4}{5}$

$\frac{6}{8}$

7

$\frac{1}{3}$ of 9 =

3

8

$\frac{2}{3}$ of 15 =

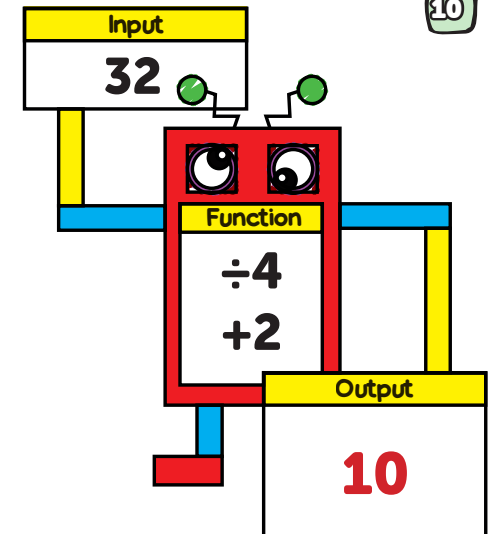
10

9

$\frac{6}{7} - \frac{4}{7} - \frac{1}{7} =$

$\frac{1}{7}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

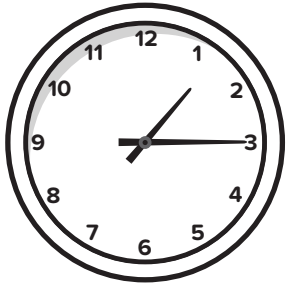
SET: 7

/10

1

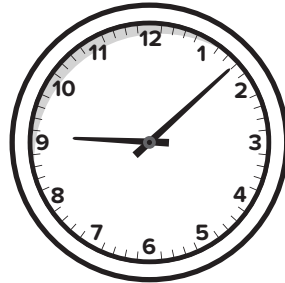
How many days are in a leap year? 366 days

2



- quarter to 7
- quarter past 1
- 20 to 9

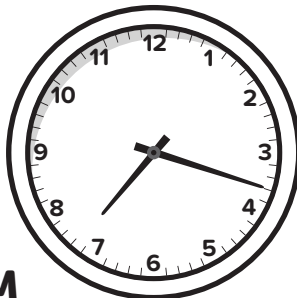
3



Write this time on the digital clock using 12 hour notation

09:08

4

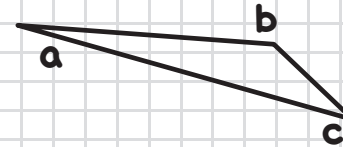


PM

Write this time on the digital clock using 24 hour notation

19:18

5



Which angle is obtuse?

b

6

Which fraction is equal to 1?

$\frac{4}{9}$ $\frac{6}{6}$ $\frac{2}{12}$

7

$\frac{1}{4}$ of 20 =

5

8

$\frac{3}{4}$ of 36 =

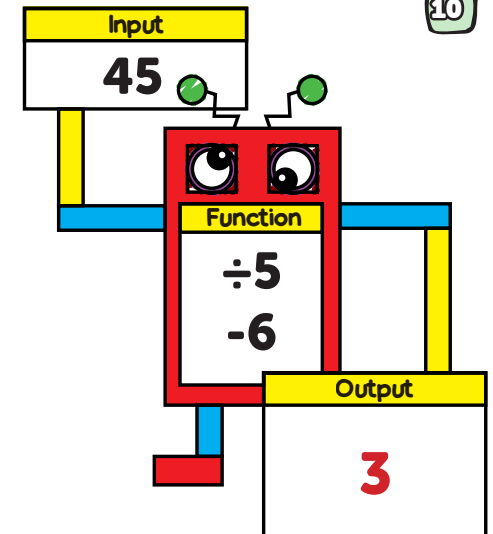
27

9

$\frac{2}{8} + \frac{2}{8} + \frac{1}{8} =$

$\frac{5}{8}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

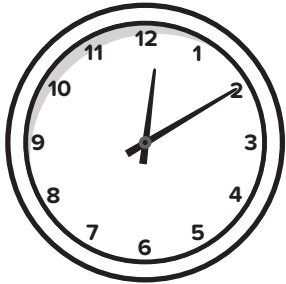
SET: 8

/10

1

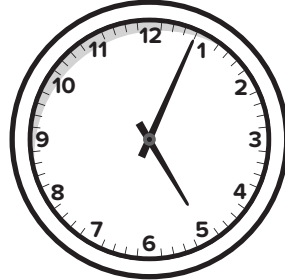
How many days are in October? 31 days

2



- 20 to 11
- 10 past 12
- 5 to 6

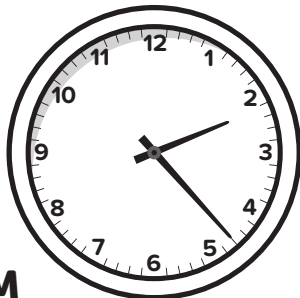
3



Write this time on the digital clock using 12 hour notation

05:04

4

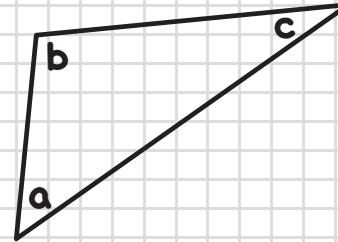


AM

Write this time on the digital clock using 24 hour notation

02:23

5



Which angle is obtuse?

b

6

Which fraction is equal to 1?

$$\frac{3}{4}$$

$$\frac{3}{7}$$

$$\frac{8}{8}$$

7

$$\frac{1}{4} \text{ of } 8 =$$

2

8

$$\frac{2}{3} \text{ of } 18 =$$

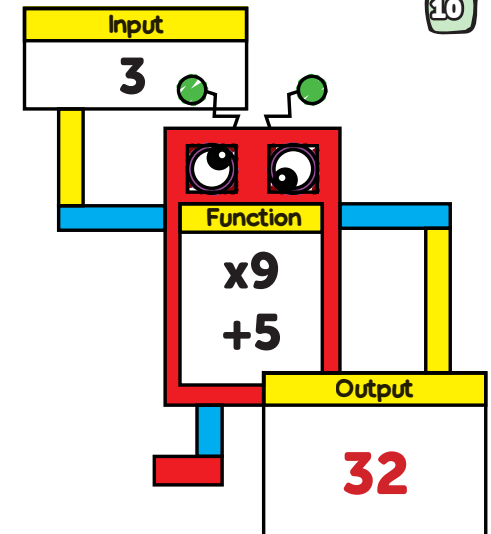
12

9

$$8 + \frac{4}{9} + \frac{2}{9} =$$

8 $\frac{6}{9}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

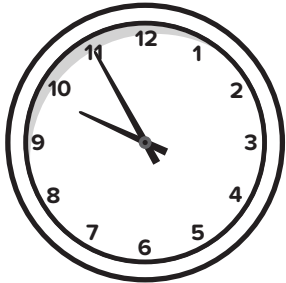
SET: 9

/10

1

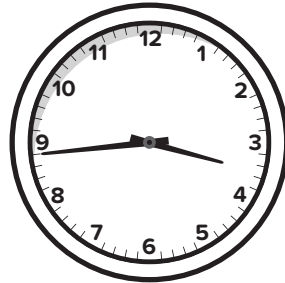
How many days are in April? 30 days

2



- 10 to 6
- 10 past 5
- 5 to 10

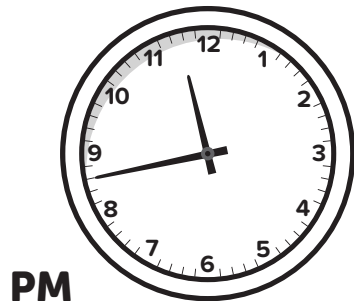
3



Write this time on the digital clock using 12 hour notation

03:44

4

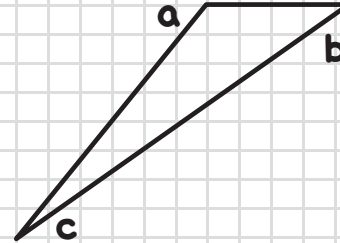


PM

Write this time on the digital clock using 24 hour notation

23:43

5



Which angle is obtuse?

a

6

Which fraction is equal to 1?

$\frac{12}{12}$

$\frac{2}{9}$

$\frac{1}{5}$

7

$\frac{1}{3}$ of 6 =

2

8

$\frac{3}{4}$ of 32 =

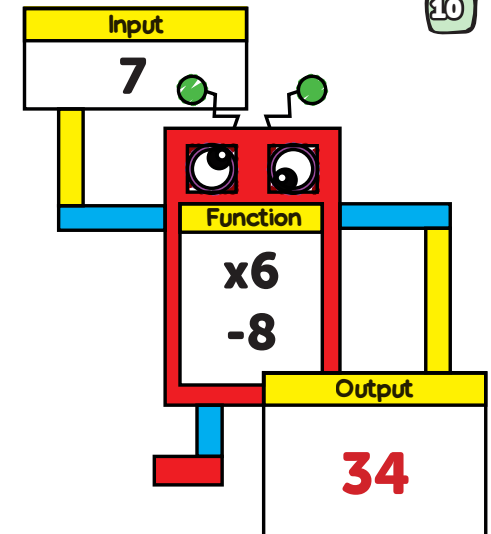
24

9

$\frac{2}{6} + \frac{1}{6} + \frac{2}{6} =$

$\frac{5}{6}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 12

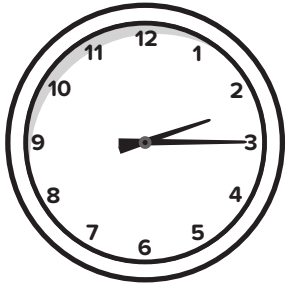
SET: 10

/10

1

How many days are in February? 28 days

2

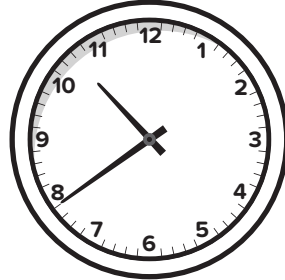


quarter past 2

10 past 9

20 to 3

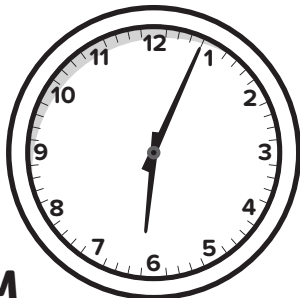
3



Write this time on the digital clock using 12 hour notation

10:39

4

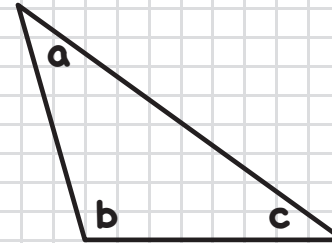


PM

Write this time on the digital clock using 24 hour notation

18:04

5



Which angle is obtuse?

b

6

Which fraction is equal to 1?

$\frac{4}{6}$

$\frac{15}{15}$

$\frac{3}{11}$

7

$\frac{1}{4}$ of 12 =

3

8

$\frac{2}{3}$ of 21 =

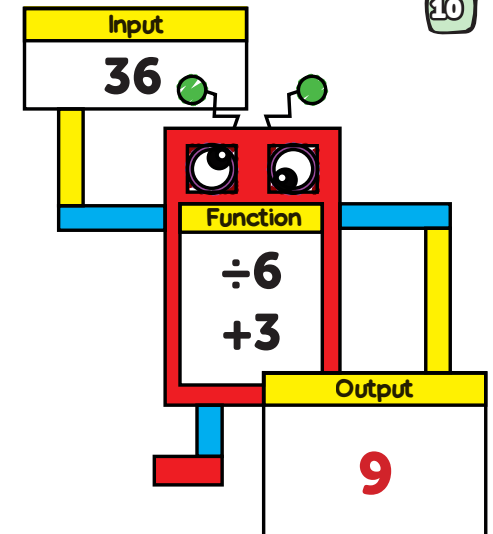
14

9

$2 + \frac{4}{8} + \frac{2}{8} =$

$2 \frac{6}{8}$

10



MY LAST SCORE?!

HAVE I BEAT THAT?!

