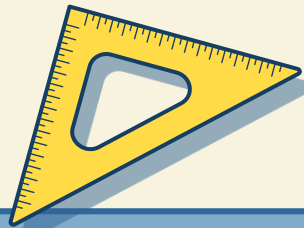
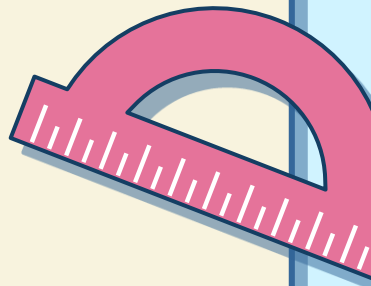




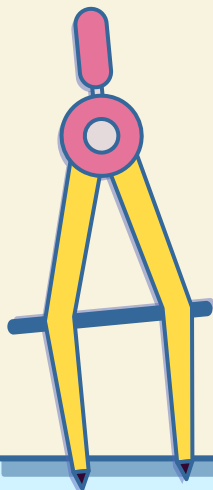
Daily Maths Activities



What's next?
Which one doesn't belong?
What's the same? What's different?
Fluency
Always, sometimes, never



What's what in here?



What's next?

01

Activities that ask children to think sequentially and create rules/define sequences.

Which one doesn't belong?

02

Activities which challenge children's thinking skills to say which of a given set is the odd one out.

**What's the same?
What's different?**

03

Activities which help children to notice similarities and differences in Maths.

Fluency

04

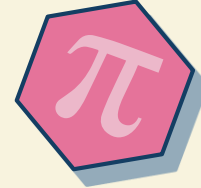
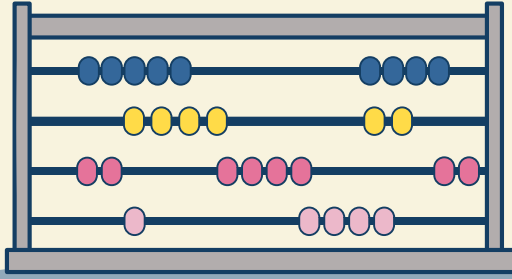
Questions which encourage fluency.

**Always, sometimes,
never**

05

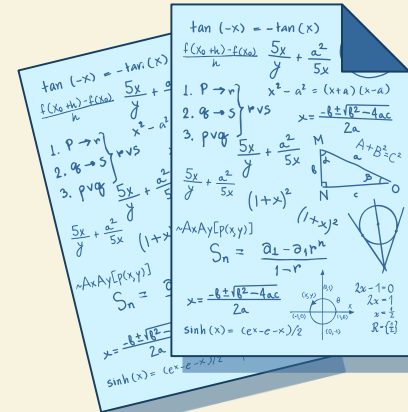
Activities which help children to think about generalisations in Maths.

Week 1



$$A = \frac{\sqrt{25 + 10 \cdot \sqrt{5}}}{4} a^2$$

$$\tan(x) = \frac{\sin(x)}{\cos(x)}$$



What's next?

What comes next in these sequences?

1. 10, 20, 30, 40...
2. 50, 45, 40, 35...
3. 7, 14, 21, 28...
4. 3, 2, 1, 0...
5. 1, 4, 9, 16...

Challenge: what's the rule for each sequence?



Which one doesn't belong?

10

100

1000

1

What's the same? What's different?

What is the same and what's different about these 6 numbers?

18

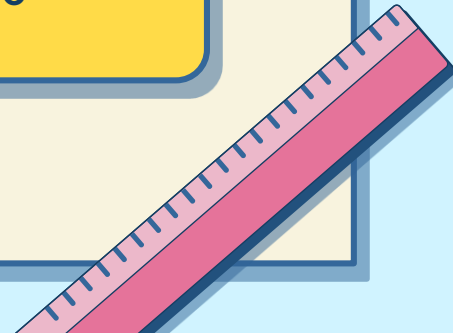
15

21

30

36

120



Fluency

Find the total of these pairs:

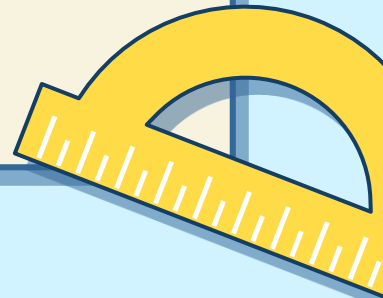
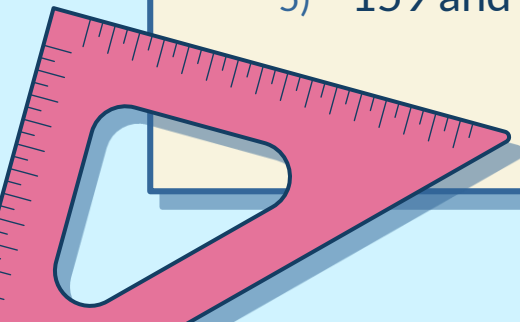
- 1) 45 and 30
- 2) 96 and 30
- 3) 60 and 30
- 4) 102 and 30
- 5) 159 and 30

Find the difference between these pairs:

- 1) 98 and 12
- 2) 58 and 12
- 3) 68 and 12
- 4) 148 and 12
- 5) 198 and 12

Find the product of these pairs:

- 1) 3 and 12
- 2) 6 and 12
- 3) 12 and 4
- 4) 12 and 8



Always, sometimes, never

1

Multiples
of 5 are
even.

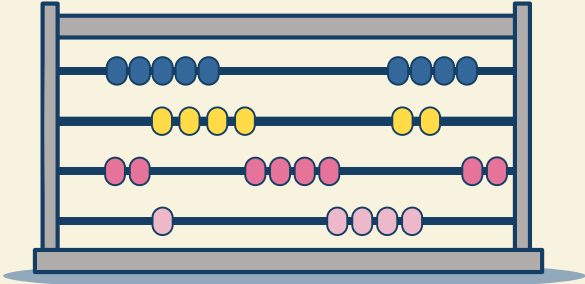
2

Multiples
of 3 are
multiples
of 6.

3

Multiples
of 10 are
even.

Week 2

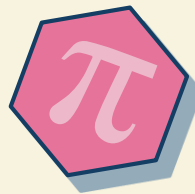


$$A = \frac{\sqrt{25 + 10 \cdot \sqrt{5}}}{4} a^2$$

$$\tan(x) = \frac{\sin(x)}{\cos(x)}$$



[illegible]



[illegible]

What's next?

What comes next in these sequences?

1. Triangle, square, pentagon, hexagon...
2. A, E, I, O...
3. 50, 40, 30, 20...
4. Z, Y, X, W...

Challenge: what's the rule for each sequence?



Which one doesn't belong?

7

5

9

2

What's the same? What's different?

What is the same and what's different about these 6 numbers?

10

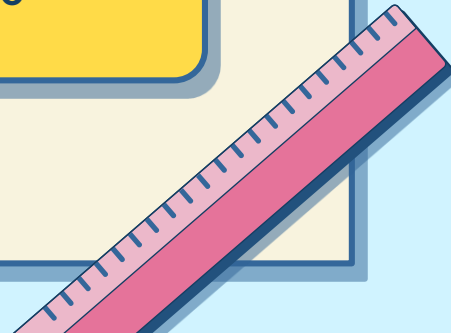
15

1000

30

25

120



Fluency

Find the total of these pairs:

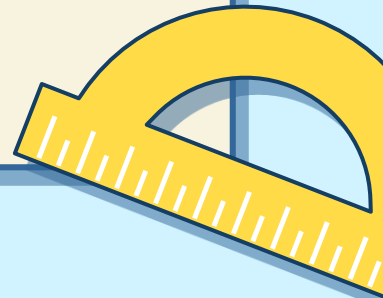
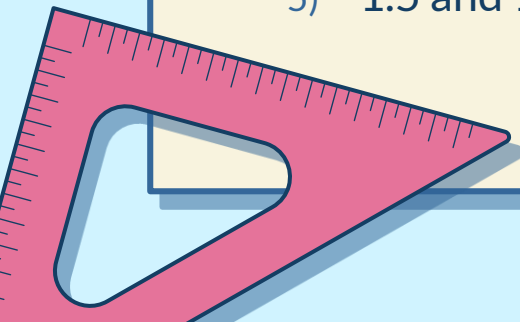
- 1) 1.5 and 3
- 2) 1.5 and 6
- 3) 1.5 and 4
- 4) 1.5 and 8
- 5) 1.5 and 16

Find the difference between these pairs:

- 1) 150 and 11
- 2) 140 and 11
- 3) 130 and 11
- 4) 110 and 11
- 5) 100 and 11

Find the product of these pairs:

- 1) 11 and 3
- 2) 11 and 6
- 3) 11 and 12
- 4) 11 and 24
- 5) 11 and 240



Always, sometimes, never

1

Squares
have 4
angles.

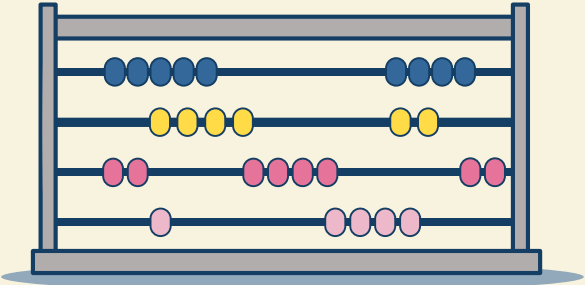
2

A shape
must have
more than
one right
angle.

3

Pentagons
have 6
sides.

Week 3

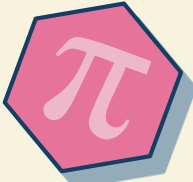


$$A = \frac{\sqrt{25 + 10 \cdot \sqrt{5}}}{4} a^2$$

$$\tan(x) = \frac{\sin(x)}{\cos(x)}$$



$$2a + 3b = ?$$



[illegible]

What's next?

What comes next in these sequences?

1. 1.5, 3, 4.5, 6...
2. 9, 8.8, 8.6, 8.4...
3. 24, 12, 6, 3...
4. 60, 40, 20, 0...
5. 1, 3, 5, 7...

Challenge: what's the rule for each sequence?



Which one doesn't belong?

37

107

17

27

What's the same? What's different?

What is the same and what's different about these 6 shapes?

square

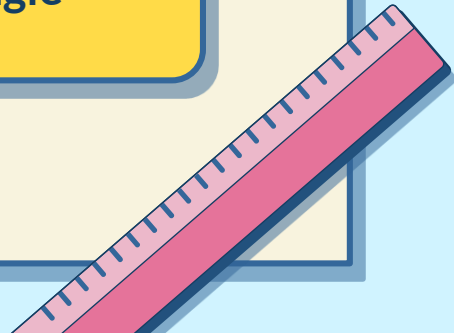
pentagon

hexagon

rectangle

octagon

triangle



Fluency

Find the total of these pairs:

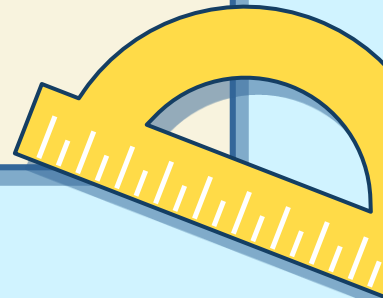
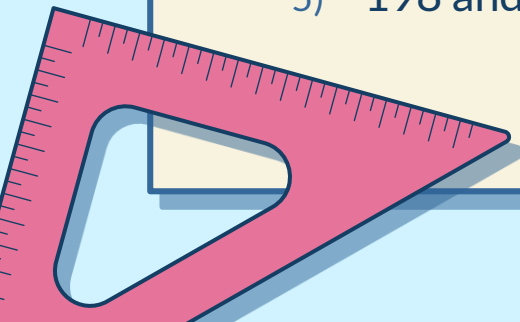
- 1) 45 and 9
- 2) 58 and 9
- 3) 31 and 9
- 4) 106 and 9
- 5) 198 and 9

Find the difference between these pairs:

- 1) 98 and 19
- 2) 58 and 19
- 3) 68 and 19
- 4) 148 and 19
- 5) 198 and 19

Find the product of these pairs:

- 1) 8 and 3
- 2) 8 and 0.3
- 3) 8 and 30
- 4) 8 and 300
- 5) 0.8 and 3



Always, sometimes, never

1

The sum of
3 numbers
is odd.

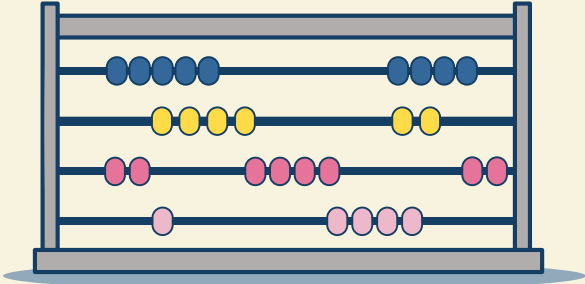
2

The
product of
2 numbers
is even.

3

The sum of
even
numbers is
even.

Week 4

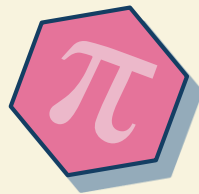


$$A = \frac{\sqrt{25 + 10 \cdot \sqrt{5}}}{4} a^2$$

$$\tan(x) = \frac{\sin(x)}{\cos(x)}$$



[illegible]



$\tan(-x) = -\tan(x)$
 $\frac{f(x_0, y_0) - f(x_0, y_0)}{y} = \frac{5x}{y} + \frac{a^2}{5x}$
 1. $P \rightarrow r^2$ $x^2 - a^2$
 2. $Q \rightarrow S$ $r \vee S$
 3. $P \vee Q$ $\frac{5x}{y} + \frac{a^2}{5x}$
 $\frac{5x}{y} + \frac{a^2}{5x} (1+y)^2$
 $-Ax_A [f(x, y)]$
 $S_n = \frac{a_1 - a_{1+n}}{1-r}$
 $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
 $\sinh(x) = (e^x - e^{-x})/2$
 $\tan(-x) = -\tan(x)$
 $\frac{f(x_0, y_0) - f(x_0, y_0)}{y} = \frac{5x}{y} + \frac{a^2}{5x}$
 1. $P \rightarrow r^2$ $x^2 - a^2$
 2. $Q \rightarrow S$ $r \vee S$
 3. $P \vee Q$ $\frac{5x}{y} + \frac{a^2}{5x}$
 $\frac{5x}{y} + \frac{a^2}{5x} (1+y)^2$
 $-Ax_A [f(x, y)]$
 $S_n = \frac{a_1 - a_{1+n}}{1-r}$
 $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
 $\sinh(x) = (e^x - e^{-x})/2$

What's next?

What comes next in these sequences?

1. 99, 88, 77, 66...
2. 9.8, 8.8, 7.8, 6.8...
3. 3.1, 4.2, 5.3, 6.4...
4. 31, 42, 53, 64...
5. 1, 1, 2, 3, 5...

Challenge: what's the rule for each sequence?



Which one doesn't belong?

kg

cm

km

ml

What's the same? What's different?

What is the same and what's different about these 6 numbers?

pencil

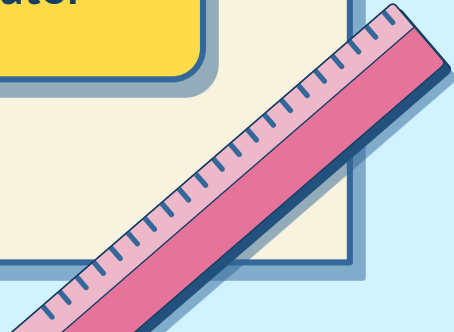
ruler

book

compass

protractor

calculator



Fluency

Find the total of these pairs:

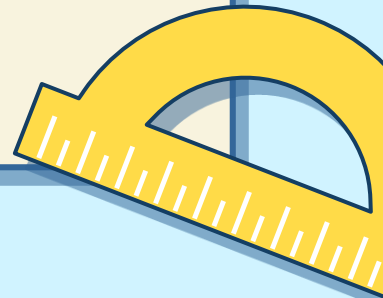
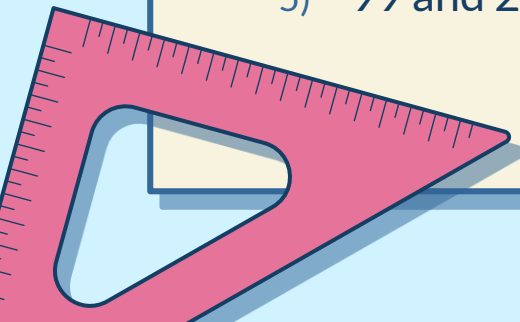
- 1) 99 and 135
- 2) 99 and 145
- 3) 99 and 245
- 4) 99 and 255
- 5) 99 and 265

Find the difference between these pairs:

- 1) 100 and 49
- 2) 100 and 39
- 3) 100 and 19
- 4) 100 and 29
- 5) 100 and 89

Find the product of these pairs:

- 1) 3 and 7
- 2) 30 and 7
- 3) 3 and 70
- 4) 300 and 7
- 5) 0.3 and 7



Always, sometimes, never

1

Even
numbers
divide by 4.

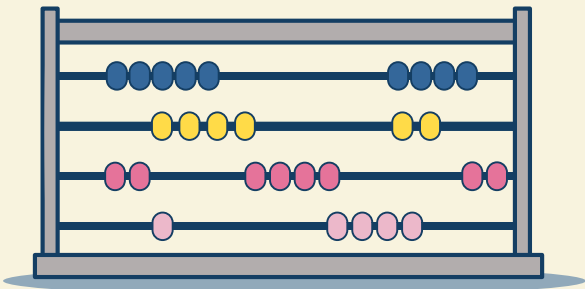
2

Odd
numbers
are prime
numbers.

3

Even
numbers
will not
divide by 3.

Week 5

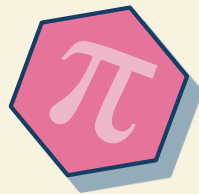


$$A = \frac{\sqrt{25 + 10 \cdot \sqrt{5}}}{4} a^2$$

$$\tan(x) = \frac{\sin(x)}{\cos(x)}$$



[illegible]



$\tan(-x) = -\tan(x)$
 $\frac{f(x_0+\Delta x) - f(x_0)}{h} \cdot \frac{\Delta x}{\Delta x} + \frac{a}{\Delta x}$
 1. $P \rightarrow r$ $x^2 - a^2 = (x+a)(x-a)$
 2. $Q \rightarrow S$ $r \vee s$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
 3. $P \vee Q$ $\frac{\Delta x}{h} + \frac{a}{\Delta x}$ M $A + B \cdot C^2$
 $\frac{\Delta x}{h} + \frac{a}{\Delta x}$ $\frac{\Delta x}{h} + \frac{a}{\Delta x}$ $(1+x)^2$ N c O
 $\frac{\Delta x}{h} + \frac{a}{\Delta x}$ $(1+x)^2$
 $-Ax \cdot [p(x, y)]$ $S_n = \frac{a_1 - a_{n+1}}{1-r}$ x
 $S_n =$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ (\cos, \sin) $2x - 1 = 0$
 $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ (\cos, \sin) $\frac{2x-1}{2x-1} = 1$
 $\sinh(x) = (e^x - e^{-x})/2$ (\cos, \sin) $z = 1$ $R^2(z)$

What's next?

What comes next in these sequences?

1. One, four, seven, ten...
2. Five, nine, fourteen, twenty...
3. 1, 2, 4, 8...
4. 9.8, 9.5, 9.2, 8.9...
5. 4, 8, 12, 16...

Challenge: what's the rule for each sequence?



Which one doesn't belong?

21

15

12

9

What's the same? What's different?

What is the same and what's different about these 6 numbers?

five

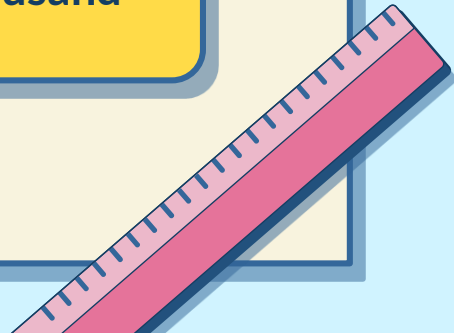
fifty

500

0.5

55

five thousand



Fluency

Find the total of these pairs:

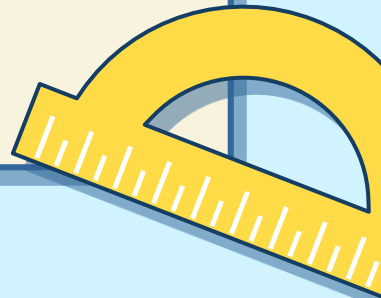
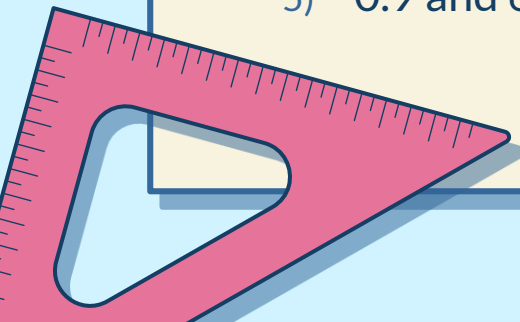
- 1) 0.9 and 1.2
- 2) 0.9 and 2.2
- 3) 0.9 and 3.2
- 4) 0.9 and 4.2
- 5) 0.9 and 6.2

Find the difference between these pairs:

- 1) 101 and 17
- 2) 111 and 17
- 3) 151 and 17
- 4) 201 and 17
- 5) 211 and 17

Find the product of these pairs:

- 1) 4 and 8
- 2) 8 and 0.4
- 3) 0.8 and 4
- 4) 40 and 80
- 5) 800 and 4



Always, sometimes, never

1

When comparing fractions, bigger denominators means smaller fraction.

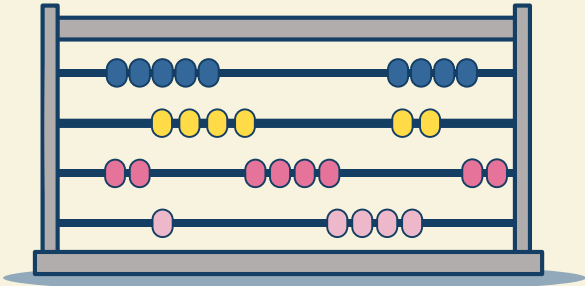
2

When adding fractions, add the numerator and add the denominator to find the total.

3

When you add fractions, you change the denominator

Week 6

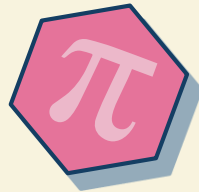


$$A = \frac{\sqrt{25 + 10 \cdot \sqrt{5}}}{4} a^2$$

$$\tan(x) = \frac{\sin(x)}{\cos(x)}$$



[illegible]



$$\tan(-x) = -\tan(x)$$

$$\frac{f(x_0, y_0) - f(x_0, y_0)}{h} = \frac{5x}{y} + \frac{a^2}{5x}$$

- $1. P \rightarrow r$
- $2. q \rightarrow s$
- $3. p \rightarrow q$

$$\frac{5x}{y} + \frac{a^2}{5x} (1+y)$$

$$-Ax Ay [p(x, y)]$$

$$S_n = 0$$

$$x = \frac{b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\sinh(x) = (e^x - e^{-x})/2$$

$$\tan(-x) = -\tan(x)$$

$$\frac{f(x_0, y_0) - f(x_0, y_0)}{h} = \frac{5x}{y} + \frac{a^2}{5x}$$

- $1. P \rightarrow r$
- $2. q \rightarrow s$
- $3. p \rightarrow q$

$$\frac{5x}{y} + \frac{a^2}{5x} (1+y)$$

$$-Ax Ay [p(x, y)]$$

$$S_n = \frac{a_1 - a_{n+1}}{1-r}$$

$$x = \frac{b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\sinh(x) = (e^x - e^{-x})/2$$

What's next?

What comes next in these sequences?

1. 1025, 1125, 1225, 1325...
2. 1195, 1185, 1175, 1165...
3. 3031, 3021, 3011, 3001...
4. 2987, 3087, 3187, 3287...
5. 10320, 11320, 12320, 13320...

Challenge: what's the rule for each sequence?



Which one doesn't belong?

$$\frac{1}{2}$$

$$\frac{1}{3}$$

$$\frac{1}{4}$$

$$\frac{1}{8}$$

What's the same? What's different?

What is the same and what's different about these 6 values?

One third

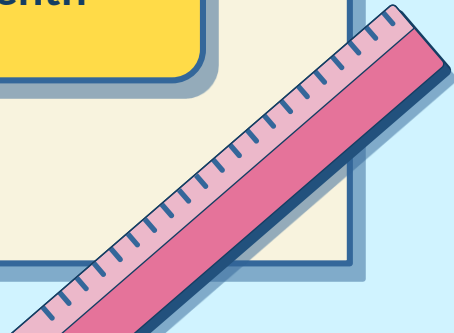
One quarter

One fifth

Two eights

Two tenths

One tenth



Fluency

Find the total of these pairs:

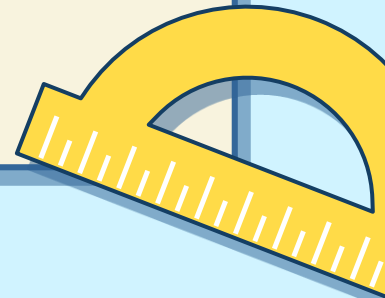
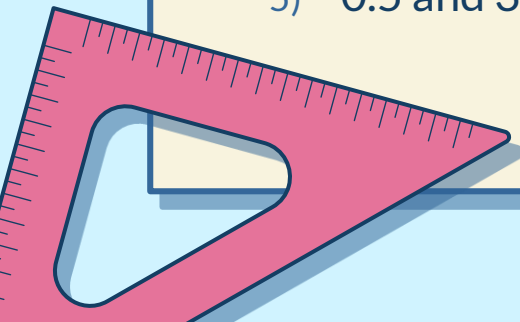
- 1) 0.5 and 0.6
- 2) 0.5 and 3.6
- 3) 0.5 and 17.6
- 4) 0.5 and 21.6
- 5) 0.5 and 37.7

Find the difference between these pairs:

- 1) 98 and 18
- 2) 58 and 18
- 3) 68 and 18
- 4) 148 and 18
- 5) 198 and 18

Find the product of these pairs:

- 1) 1 and 15
- 2) 10 and 15
- 3) 10 and 1.5
- 4) 0.1 and 15
- 5) 0.1 and 1.5



Always, sometimes, never

1

The sum of
2
consecutive
numbers is
even.

2

Consecutive
numbers
have more
than one
common
factor.

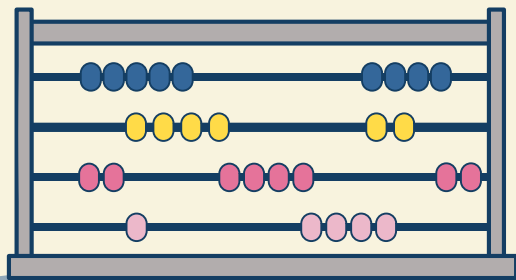
3

Consecutive
numbers
have no
common
factors.

Math Icon Pack



Alternative resources



$$A = \frac{\sqrt{25 + 10 \cdot \sqrt{5}}}{4} a^2$$

$$\tan(x) = \frac{\sin(x)}{\cos(x)}$$

