

Shuttle: Substitution

You are **pair A**. Pair A has questions 1 and 3, pair B has questions 2 and 4. Question 1 stands alone. Every question after it has a pink box: write in the number the other pair passes you, then solve. No talking between pairs. Only the number gets passed. Finish the round and check question 4 with the teacher.

Round 1

Q1

Work out the value of $3a + 2b$ when $a = 5$ and $b = 4$.

Answer _____

Pass your answer to pair B

Q2

Pair B has this question.

Q3

$$y = \frac{x}{4} + 9$$

Find y when $x =$.

Write pair B's answer to question 2 in the pink box.

Answer _____

Pass your answer to pair B

Q4

Pair B has this question.

Round 2

Q1

Work out the value of $4p - q$ when $p = -2$ and $q = -15$.

Answer _____

Pass your answer to pair B

Q2

Pair B has this question.

Q3

$$s = \frac{(u + v)t}{2}$$

Find s when $u = 10$, $v =$ and $t = 3$.

Write pair B's answer to question 2 in the pink box.

Answer _____

Pass your answer to pair B

Q4

Pair B has this question.

Round 3

Q1

Kayak hire costs C pounds for h hours, where $C = 30 + 12h$. Find C when $h = 5$.

Answer _____

Pass your answer to pair B

Q2

Pair B has this question.

Q3

Work out the value of $\frac{m + 15}{m - 75}$ when

$m =$.

Write pair B's answer to question 2 in the pink box.

Answer _____

Pass your answer to pair B

Q4

Pair B has this question.

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You are **pair B**. Pair A has questions 1 and 3, pair B has questions 2 and 4. Question 1 stands alone. Every question after it has a pink box: write in the number the other pair passes you, then solve. No talking between pairs. Only the number gets passed. Finish the round and check question 4 with the teacher.

Round 1

Q1

Pair A has this question.

Q2

$$P = 2l + 2w$$

Find P when $l =$ and $w = 9$.

Write pair A's answer to question 1 in the pink box.

Answer _____

Pass your answer to pair A

Q3

Pair A has this question.

Q4

A temperature of C degrees Celsius is F degrees Fahrenheit, where $F = \frac{9C}{5} + 32$.

Find F when $C =$.

Write pair A's answer to question 3 in the pink box.

Answer _____

Hand your answer to the teacher

Round 2

Q1

Pair A has this question.

Q2

Work out the value of $x^2 + 3x$ when $x =$.

Write pair A's answer to question 1 in the pink box.

Answer _____

Pass your answer to pair A

Q3

Pair A has this question.

Q4

Work out the value of $\sqrt{m + 24}$ when $m =$.

Write pair A's answer to question 3 in the pink box.

Answer _____

Hand your answer to the teacher

Round 3

Q1

Pair A has this question.

Q2

$$a = 2b - 3c$$

Find a when $b =$ and $c = 25$.

Write pair A's answer to question 1 in the pink box.

Answer _____

Pass your answer to pair A

Q3

Pair A has this question.

Q4

Work out the value of $2t^3 - 5t$ when $t =$.

Write pair A's answer to question 3 in the pink box.

Answer _____

Hand your answer to the teacher