Unleashing Students’ Potential: Overriding Automatic Responses
Automatic Responses?
The Typical
I don’t remember the formula

I don’t know how

Neither do I

Is this when we...

Is this right?

Can you show me what to do next?
10. $\frac{7}{15} \times \frac{5}{12} = \frac{35}{180}$

84 + 75 = 159
14. $1 \frac{1}{2}$ of 24

$\frac{3}{2} \times 24 = \frac{3}{48}$
20. \[ 4.8 \times 2.5 \]

\[
\begin{array}{c}
4.8 \\
\times 2.5 \\
\hline
240 \\
960 \\
\hline
1200
\end{array}
\]
22. 80% of 35

\[
\begin{array}{c}
80 \div 3500 \\
320 \\
300 \\
240 \\
60
\end{array}
\]
22. 80% of 35

\[
\begin{align*}
\text{4} & \times 35.0 \\
\text{280.0} & \\
\end{align*}
\]
\[ \frac{2}{3} + \frac{1}{5} = \frac{3}{8} \]
\[
\frac{p}{p + q} = \frac{p}{p + q} = \frac{1}{q}
\]
How do I retrain a response that...

- Deal with anxiety blocks
- What’s the same?
- What’s different?
- What’s reasonable?
- What do I notice?
- What do I wonder?
- What do I know?
- What could I figure out?
- How do I know?
How do I retrain a response that...

• Deals with this anxiety block
A number multiplied by itself three times is 68,921. Find the number by eliminating possibilities.
https://www.youtube.com/watch?v=aHruGOS7Ut4
Pandora – Classical for Studying
A number multiplied by itself three times is 68,921. Find the number by eliminating possibilities.
Exam Prep
How do I retrain a response that asks...

- What’s the same?
- What’s different?
What’s On the Floor?

https://www.youtube.com/watch?v=YVzldvuHvRA
Which One Doesn’t Belong?

- [http://wodb.ca/](http://wodb.ca/)
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GRAPH 21

from Mishaal Surti
How do I retrain a response that asks...

- What’s reasonable?
Exit Game

- Trios
- String of pearls
- Favorite group shape
- 4 variations on your shape
- 1 Exit Move
- Assign dice sides to the shapes
- Roll until you get your exit move (3 times)
- Pick middle length and choreograph
It’s About…
It’s About…

\[
\frac{11}{6} \quad -0.172
\]
It’s About…

\[ 0.006 \times \frac{14}{3} \]
It’s About…

76% of 3388
It’s About…

111% of 2845
It’s About... 

\[
\frac{23}{18} \div 0.83
\]
It’s About…

\[ 2 \frac{16}{17} \div \frac{33}{10} \]
It’s About...

• Flip over a pink card
• Flip over an orange card
• (Playing with a partner)
  • Jot down your estimate
  • Show your partner and explain how you found it
  • See who is closely by using a calculator (optional)
• (Playing independently)
  • See how close you can get to the answer in 30 seconds
  • Check your estimate by using a calculator (optional)
How do I retrain a response that asks...

- What do I notice?
- What do I wonder?
Dotty

• What do you notice?

• What do you wonder?

• Investigate the pattern

• Describe what the 10th ding looks like.

• Describe what the 97th ding looks like.

https://www.jasondavies.com/factorisation-diagrams/