



Trial and Improvement: Step-by-step 1

Name:.....

Date:.....

Which of these is a good idea for the next step to solve this equation by trial and improvement?

Solve $x^2 - x = 27$ (to 1 d.p)

A) Try $x = 5.5$

x	$x^2 - x$	27
5	$5^2 - 5 = 20$	too small
6	$6^2 - 6 = 30$	too big

B) Try $x = 5.786$

C) Try $x = 4$

D) Try $x = 7$

Correct Answer: A B C D

Explanation:

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Which of these is a good idea for the next step to solve this equation by trial and improvement?

Solve $x^2 - x = 27$ (to 1 d.p)

A) Try $x = 5.4$

x	$x^2 - x$	27
5	$5^2 - 5 = 20$	too small
6	$6^2 - 6 = 30$	too big
5.5	$5.5^2 - 5.5 = 24.75$	too small

B) Try $x = 5.501$

C) Try $x = 5.6$

D) Try $x = 7$

Correct Answer: A B C D

Explanation:

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What is the best next step to solve this equation by trial and improvement?

Solve $x^2 - x = 27$ (to 1 d.p)

A) Try $x = 5.71$

x	$x^2 - x$	27
5	$5^2 - 5 = 20$	too small
6	$6^2 - 6 = 30$	too big
5.5	$5.5^2 - 5.5 = 24.75$	too small
5.6	$5.6^2 - 5.6 = 25.76$	too small
5.7	$5.7^2 - 5.7 = 26.79$	too small
5.8	$5.8^2 - 5.8 = 27.84$	too big

B) No more to do as you know the answer is $x = 5.7$

C) Try $x = 5.75$

D) Keep trying x values until you get as close to 27 as possible

Correct Answer: A B C D

Explanation:

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What is the answer to this trial and improvement question?

A) You don't know as you have not got an answer of 27 yet

B) $x = 5.7$

C) $x = 5.75$

D) $x = 5.8$

Solve $x^2 - x = 27$ (to 1 d.p)

x	$x^2 - x$	27
5	$5^2 - 5 = 20$	too small
6	$6^2 - 6 = 30$	too big
5.5	$5.5^2 - 5.5 = 24.75$	too small
5.6	$5.6^2 - 5.6 = 25.76$	too small
5.7	$5.7^2 - 5.7 = 26.79$	too small
5.8	$5.8^2 - 5.8 = 27.84$	too big
5.75	$5.75^2 - 5.75 = 27.3125$	too big

Correct Answer: A B C D

Explanation:

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