Re: true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't

Source: http://sci.tech−archive.net/Archive/sci.math/2005−08/msg04872.html

- *From*: john_ramsden@xxxxxxxxxxxxxx
- *Date*: 25 Aug 2005 10:47:09 −0700

Robert Israel wrote:
> In article <1124960183.220303.114120@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
> <john_ramsden@xxxxxxxxxxxxxx> wrote:
>
> >I've always presumed that an inflection of y = y(x) is a
> >point where y" = 0, whether this is an extrema of y' or
> >only a turning point (which is apparently the distinction
> >some definitions are intended to make).
>
> >But obviously opinion is still divided, which for a concept
> >so basic and long−established is astonishing.
>
> I'm not aware of any published source that agrees with your
> definition. To come back to the Subject line, nobody would
> say that x^4 − x has an inflection at x=0.
>
> Robert Israel israel@xxxxxxxxxxx
> Department of Mathematics http://www.math.ubc.ca/~israel
> University of British Columbia Vancouver, BC, Canada

It does seem like I was plain wrong to think an inflection
of y = y(x) was synonymous with a point satisfying y" = 0.
(Wikipedia says the first implies the second, but that the
converse need not hold.)

Is there any practical purpose in distinguishing a "change
of sign in curvature" point from a straightforward y" = 0
point, apart from simply describing the appearance of curves?

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- ***Follow−Ups***:
  - ♦ ***Re: true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't***
    - ◊ *From:* Proginoskes

- ***Re: true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't***
  - *From:* N. Silver

- ***References***:
  - ***true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't***
    - *From:* David Jones
  - ***Re: true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't***
    - *From:* Robert Israel
  - ***Re: true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't***
    - *From:* Gerry Myerson
  - ***Re: true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't***
    - *From:* john_ramsden
  - ***Re: true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't***
    - *From:* Robert Israel

- Prev by Date: ***Re: shortest distance between a point and a function in 2d***
- Next by Date: ***Re: Mathematical ASL?***
- Previous by thread: ***Re: true or false: (x^5 − x) has inflexion point at origin, (x^4 − x) doesn't***
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