Calculus
M 12 September 2011
RESET THE
SESSION

SET THE
PARTICIPANT
LIST
Sure that the correct answers have been entered into Turning Point???

YES
QUIZ
FOLLOWS
T or F:
\[ \forall x > 0, \sqrt{x^2} = x \]

(a) True
(b) False
T or F:
\( \forall x < 0, \sqrt{x^2} = -x \)

(a) True

(b) False
(a) True
(b) False

T or F: 
$[-1, 1]$ is compact
(a) True

(b) False

T or F:

$(-\infty, 5]$ is compact
Which is a linear combination of \( \sin x \) and \( \cos x \)?

(a) \( \sin x \)

(b) \( 2 + 8x + 7x^2 \)

(c) \( e^x \)

(d) none of the above
Leading coefficient in $3x^5 + x^4 - x^3 + 8x + \pi$

(a) 1

(b) 3

(c) $-1$

(d) none of the above
distance from $x$ to 5?

(a) $x - 5$

(b) $|x - 5|$

(c) $x - 5$

(d) none of the above
To get graph of \((y - \pi)^2 = \sin(x)\),
move graph of \(y^2 = \sin(x)\) . . .

(a) right \(\pi\)

(b) left \(\pi\)

(c) down \(\pi\)

(d) none of the above

Correct answer: up \(\pi\)
\[
\sum_{j=2}^{4} j^3 = ??
\]

(a) \((2 + 3 + 4)^3\)

(b) \((1 + 2 + 3 + 4)^3\)

(c) \(2^3 + 3^3 + 4^3\)

(d) none of the above
\[ \sin\left(\frac{3\pi}{4}\right) = ?? \]

(a) \(\frac{\sqrt{2}}{2}\)

(b) \(-\frac{\sqrt{2}}{2}\)

(c) \(\frac{1}{2}\)

(d) **none** of the above
arcsin(\(\sqrt{2}/2\)) = ??

(a) \(\pi/3\)

(b) \(\pi/4\)

(c) \(\pi/6\)

(d) none of the above
\[
\lim_{x \to 0} \frac{2x^3 + 3x}{x} = ?
\]

(a) 0

(b) 2

(c) 3

(d) none of the above
tangent slopes for \( y = x^3 \), esp. at \( x = 5 \).

\[
\lim_{h \to 0} \frac{(5+h)^3 - 5^3}{h}
\]

\[
\lim_{\Delta x \to 0} \frac{(5 + \Delta x)^3 - 5^3}{\Delta x}
\]

\[
\lim_{h \to 0} \frac{|h|}{h}
\]

the limit game

LOOK AHEAD

differentiate polynomials
differentiate all 6 trig functions
product rule, quotient rule
SAVE THE SESSION DATA

RETURN TO PRESENTATION