

Lecture 42: Review 1

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Question 1.

Which of the following are true statements about the final?

- A The MA 110 final is from 6-8 pm on Monday, 12 December 2016.
- B The MA 110 final is in CB 106.
- C The final will be half on the material since exam 4 and half on material from exams 1-3.
- D The review homework, homework 42, provides a review of the new material.
- E The old tests will serve as a review of the material from exams 1-3.

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All answers are correct.

Question 2.

Find the angle that ray $\{(x, y) : y = 2x, x \geq 0\}$ makes with the positive x -axis.

- A $\sin^{-1}(1/2)$
- B $\sin^{-1}(2\sqrt{5}/5)$
- C $\cos^{-1}(\sqrt{5}/5)$
- D $\tan^{-1}(2)$
- E $\tan^{-1}(1/2)$

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B,C,D

Question 3.

Suppose f is one-to-one function. If $(x(t), y(t))$ gives a parametrization of the graph of f , then which of the following will give a parametrization of the graph of the inverse function f^{-1} .

- A $(1/x(t), 1/y(t))$
- B $(-x(t), -y(t))$
- C $(y(t), x(t))$
- D $(-y(t), -x(t))$
- E $(-1/y(t), -1/x(t))$

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C.

Recall that if (x, y) is a point on the graph of f , then (y, x) will be a point on the graph of f^{-1} .

Question 4.

A line is described by the parametric equations $y = 2t$, $x = t + 3$. Give the equation of the line in the form $y = mx + b$.

A $y = 2x + 3$

B $y = 2x + 6$

C $y = 2x - 6$

D $y = 2x - 3$

E $y = \frac{x}{2} - 3$

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$t = x - 3$, thus $y = 2t = 2(x - 3) = 2x - 6$.