

PREPARING for MATH PLACEMENT TESTING, Test A

Test A covers pre-algebra and elementary algebra. Test B covers intermediate algebra (see Test B). Take Test A unless you averaged at least B in second-year algebra or at least C in four years of high school math. The test helps new students choose their math classes; and in order to demonstrate your competence, you should review the math that you have learned. **To prepare for Test A, answer the questions below:**

1. Without using a calculator, evaluate:

a) $0.6 - 0.125 =$

b) $\frac{1}{10} - \frac{3}{5} =$

c) $-4 - 2(3) =$

d) $\frac{3}{10} + \frac{2}{15} =$

e) $\frac{7}{6} \times \frac{10}{21} =$

f) $\frac{3}{5} \div \frac{1}{15} =$

g) $-3[-3 \cdot 5 + 2 \div 6] =$

h) $(x - 7)(x + 4)$, if $x = -5$

2. Without a calculator, convert to decimal form:

a) $\frac{8053}{200}$

b) $\frac{5}{11}$

3. Simplify:

a) $5x^2 - 7x - 8 - (3 + 4x - 6x^2) =$

b) $(1.9 \times 10^{-3}) \times 50 =$

4. Multiply:

a) $(2x - 3)(4x - 5) =$

b) $(x + 4)^2 =$

5. Solve for x :

a) $-7 - x = -72 + 4x$

b) $3x = a - bx$

c) $5 - 2x > 4$

d) $\frac{3x - 7}{5} = 2x$

6. Factor completely:

a) $x^2 - x - 20 =$

b) $2x^2 - 6x =$

c) $4x^2 - 81 =$

d) $6x^2 - 9x + 8x - 12 =$

7. If a car goes 235 miles on 13 gallons of gasoline, how far does it go on 15 gallons (to the nearest mile)?

8. A rectangle has one side of length 8 m. and area is 88 m^2 . Find the perimeter.

Answers:

1a) 0.475, **b)** $-1/2$, **c)** -10 , **d)** $13/30$, **e)** $5/9$, **f)** 9, **g)** 44, **h)** 12; **2a)** 40.265, **b)** $0.\overline{45}$;

3a) $11x^2 - 11x - 11$, **b)** 0.095 or 9.5×10^{-2} ; **4a)** $8x^2 - 22x + 15$, **b)** $x^2 + 8x + 16$;

5a) $x = 13$, **b)** $x = a/(b + 3)$, **c)** $x < 1/2$, **d)** $x = -1$; **6a)** $(x - 5)(x + 4)$, **b)** $2x(x - 3)$,

c) $(2x + 9)(2x - 9)$, **d)** $(3x + 4)(2x - 3)$; **7.** 271 miles; **8.** 38 m