

SKILLS LIST and SAMPLE TEST ITEMS

FOR

PRACTICE TEST FOR MATHEMATICS, GRADE 9

(Test items developed for skills measured in TAKS03)

Skills

- | | |
|---|--|
| 1.0 Functional Relationships | 6.0 Geometric Relationships |
| 1.1 Quantities | 6.1 Transformational Geometry |
| 2.0 Functions | 6.2 Model/Describe Physical World |
| 2.1 Properties and Attributes | 7.0 Two- and Three-Dimensional Relationships |
| 2.2 Algebra | 7.1 Model/Describe Physical World |
| 2.3 Manipulate Symbols | 8.0 Measurement/Similarity |
| 3.0 Linear Functions | 8.1 Solids |
| 3.1 Ways to Represent | 8.2 Indirection Measurement |
| 3.2 Slope/Intercepts of Linear Functions | 8.3 Linear/Area/Volume |
| 4.0 Linear Equations and Inequalities | 9.0 Problem Solving |
| 4.1 Formulates Equations and Inequalities | 9.1 Proportional Relationships |
| 4.2 Problem Situations | 9.2 Predictions |
| 5.0 Quadratic and Other Nonlinear Functions | 9.3 Statistics |
| 5.1 Graphs | 10.0 Mathematical Processes/Tools |
| 5.2 Exponents | 10.1 Problem Solving |
| | 10.2 Mathematical Ideas |
| | 10.3 Logical Reasoning |

Number of questions: 50

Number of pages: 14

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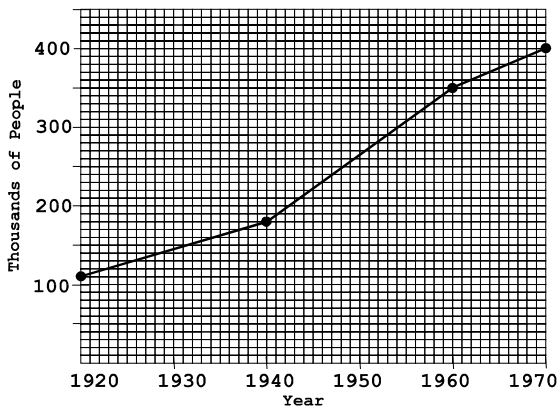
**TAKS03 PRACTICE TEST IN MATHEMATICS - GRADE 9
FORM A**

DIRECTIONS: Read each question and choose the correct answer.

SAMPLE A

According to the graph below, during which period did the population of Fort Worth grow the most?

Population of Fort Worth, Texas, from 1920-1970



- A. 1920-1940
- B. 1930-1940
- C. 1940-1960
- D. 1960-1970

1. Every 6 days a fern grows $\frac{1}{2}$ inch.
The fern started out at 5 inches.
How many days will it take to reach 10 inches?

 - A. 60
 - B. 50
 - C. 45
 - D. 25

2. Kristen needs at least \$112 to pay for her vacation. She earns \$6 an hour at the bakery, and she has already saved \$65. Which inequality shows how many hours she needs to work in order to pay for her vacation?

 - A. $6+65x>112$
 - B. $6+65x<112$
 - C. $65+6x\geq 112$
 - D. $65+6x\leq 112$

3. The ratio of boys to girls at Leavy High is 3 to 2. There are 850 students at the school. Which system of linear equations should be used to solve for the number of boys and girls?

- A. $\frac{b}{g} = \frac{3}{2}$ $b-g=850$
- B. $\frac{b}{g} = \frac{3}{2}$ $b+g=850$
- C. $\frac{g}{b} = \frac{3}{2}$ $b-g=850$
- D. $\frac{g}{b} = \frac{3}{2}$ $b+g=850$

4. Maria's aunt sponsored her in a walk-a-thon. This equation represents the amount of money she pledged to give to Maria.

$$5+1.50x=y$$

Which best describes the pledge?

- A. \$1.50 donation and \$5 for each km
- B. \$1.50 plus \$5 for each km
- C. \$5 donation and \$1.50 for each km
- D. \$6.50 donation

5. A square has an area of $49a^2b^4$ ($a=0, b=0$). Which of the following is a side length of the square?

- A. $24a^2b^4$
- B. $24.5a^2b^2$
- C. $7a^2b^4$
- D. $7ab^2$