

## 1-3

**Practice**

Form G

## Real Numbers and the Number Line

Simplify each expression.

1.  $\sqrt{4}$

2.  $\sqrt{36}$

3.  $\sqrt{25}$

4.  $\sqrt{81}$

5.  $\sqrt{121}$

6.  $\sqrt{169}$

7.  $\sqrt{625}$

8.  $\sqrt{225}$

9.  $\sqrt{\frac{64}{9}}$

10.  $\sqrt{\frac{25}{81}}$

11.  $\sqrt{\frac{225}{169}}$

12.  $\sqrt{\frac{1}{625}}$

13.  $\sqrt{0.64}$

14.  $\sqrt{0.81}$

15.  $\sqrt{6.25}$

Estimate the square root. Round to the nearest integer.

16.  $\sqrt{10}$

17.  $\sqrt{15}$

18.  $\sqrt{38}$

19.  $\sqrt{50}$

20.  $\sqrt{16.8}$

21.  $\sqrt{37.5}$

22.  $\sqrt{67.5}$

23.  $\sqrt{81.49}$

24.  $\sqrt{121.86}$

Find the approximate side length of each square figure to the nearest whole unit.

25. a rug with an area of  $64 \text{ ft}^2$ 26. an exercise mat that is  $6.25 \text{ m}^2$ 27. a plate that is  $49 \text{ cm}^2$ \* No calculator  
on this side  
of the  
worksheet.

# 1-3 Practice (continued)

## Real Numbers and the Number Line

Form G

*\* Calculators Allowed for problems ONLY!*

Name the subset(s) of the real numbers to which each number belongs.

28.  $\frac{12}{18}$

29.  $-5$

30.  $\pi$

31.  $\sqrt{2}$

32.  $5564$

33.  $\sqrt{13}$

34.  $-\frac{4}{3}$

35.  $\sqrt{61}$

Compare the numbers in each exercise using an inequality symbol.

36.  $\sqrt{25}, \sqrt{64}$

37.  $\frac{4}{5}, \sqrt{1.3}$

38.  $\pi, \frac{19}{6}$

39.  $\sqrt{81}, -\sqrt{121}$

40.  $\frac{27}{17}, 1.7781356$

41.  $-\frac{14}{15}, \sqrt{0.8711}$

Order the numbers from least to greatest.

42.  $1.875, \sqrt{64}, -\sqrt{121}$

43.  $\sqrt{0.8711}, \frac{4}{5}, \sqrt{1.3}$

44.  $8.775, \sqrt{67.4698}, \frac{64.56}{8.477}$

45.  $-\frac{14}{15}, 5.587, \sqrt{81}$

46.  $\frac{100}{22}, \sqrt{25}, \frac{27}{17}$

47.  $\pi, \sqrt{10.5625}, -\frac{15}{5.8}$

48. Marsha, Josh, and Tyler are comparing how fast they can type. Marsha types 125 words in 7.5 minutes. Josh types 65 words in 3 minutes. Tyler types 400 words in 28 minutes. Order the students according to who can type the fastest.

# Key

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## 1-3

### Practice

Form G

Real Numbers and the Number Line

\*NO calculators on this side of the wkst

Simplify each expression.

1.  $\sqrt{4}$  2

2.  $\sqrt{36}$  6

3.  $\sqrt{25}$  5

4.  $\sqrt{81}$  9

5.  $\sqrt{121}$  11

6.  $\sqrt{169}$  13

7.  $\sqrt{625}$  25

8.  $\sqrt{225}$  15

9.  $\sqrt{\frac{64}{9}}$   $\frac{8}{3}$

10.  $\sqrt{\frac{25}{81}}$   $\frac{5}{9}$

11.  $\sqrt{\frac{225}{169}}$   $\frac{15}{13}$

12.  $\sqrt{\frac{1}{625}}$   $\frac{1}{25}$

13.  $\sqrt{0.64}$  0.8

14.  $\sqrt{0.81}$  0.9

15.  $\sqrt{6.25}$  2.5

$$\sqrt{64} = 8 \therefore \sqrt{.64} = .8 \quad \text{OR} \quad \frac{\sqrt{64}}{\sqrt{100}} = \frac{8}{10}$$

Estimate the square root. Round to the nearest integer.

### \*NO CALCULATORS

16.  $\sqrt{10}$  3

17.  $\sqrt{15}$  4

18.  $\sqrt{38}$  6

bH  $\sqrt{9}$   $\sqrt{16}$

bH  $\sqrt{9}$   $\sqrt{16}$

bH  $\sqrt{36}$   $\sqrt{49}$

19.  $\sqrt{50}$  7

20.  $\sqrt{16.8}$  4

21.  $\sqrt{37.5}$  6

bH  $\sqrt{49}$   $\sqrt{64}$

bH  $\sqrt{16}$   $\sqrt{25}$

bH  $\sqrt{36}$   $\sqrt{49}$

22.  $\sqrt{67.5}$  8

23.  $\sqrt{81.49}$  9

24.  $\sqrt{121.86}$  11

bH  $\sqrt{64}$   $\sqrt{81}$

bH  $\sqrt{81}$   $\sqrt{100}$

bH  $\sqrt{121}$   $\sqrt{144}$

Find the approximate side length of each square figure to the nearest whole unit.

25. a rug with an area of  $64 \text{ ft}^2$  8 ft

26. an exercise mat that is  $6.25 \text{ m}^2$  ~~2.5 m~~ 3m

27. a plate that is  $49 \text{ cm}^2$  7 cm

# 1-3

## Practice (continued)

Form G

### Real Numbers and the Number Line

Name the subset(s) of the real numbers to which each number belongs.

28.  $\frac{12}{18}$

rational

29.  $-5$

rational; integer

30.  $\pi$

irrational

31.  $\sqrt{2}$

irrational

32. 5564

rational; integer;  
whole; natural

33.  $\sqrt{13}$

irrational

34.  $\frac{4}{3}$

rational

35.  $\sqrt{61}$

irrational

Compare the numbers in each exercise using an inequality symbol.

36.  $\sqrt{25}, \sqrt{64}$

$\sqrt{25} < \sqrt{64}$

$5 < 8$

37.  $\frac{4}{5}, \sqrt{1.3}$

$\frac{4}{5} < \sqrt{1.3}$

$\frac{4}{5} \cdot \frac{20}{20} = \frac{80}{100} = .80, .9^2 = .81$  which

38.  $\pi, \frac{19}{6}$

$\pi < \frac{19}{6}$

$\approx 3.14$   $3\frac{1}{6}$

39.  $\sqrt{81}, -\sqrt{121}$

$\sqrt{81} > -\sqrt{121}$

40.  $\frac{27}{17}, 1.7781356$

$\frac{27}{17} < 1.7781356$

is less than  $\pi.3$

41.  $-\frac{14}{15}, \sqrt{0.8711}$

$-\frac{14}{15} < \sqrt{0.8711}$

↑  
negative

Order the numbers from least to greatest.

42.  $1.875, \sqrt{64}, -\sqrt{121}$

$-\sqrt{121}, 1.875, \sqrt{64}$

43.  $\sqrt{0.8711}, \frac{4}{5}, \sqrt{1.3}$

$\frac{4}{5}, \sqrt{0.8711}, \sqrt{1.3}$

44.  $8.775, \sqrt{67.4698}, \frac{64.56}{8.477}$

$\frac{64.56}{8.477}, \sqrt{67.4698}, 8.775$

45.  $-\frac{14}{15}, 5.587, \sqrt{81}$

$-\frac{14}{15}, 5.587, \sqrt{81}$

46.  $\frac{100}{22}, \sqrt{25}, \frac{27}{17}$

$\frac{27}{17}, \frac{100}{22}, \sqrt{25}$

47.  $\pi, \sqrt{10.5625}, -\frac{15}{5.8}$

$-\frac{15}{5.8}, \pi, \sqrt{10.5625}$

48. Marsha, Josh, and Tyler are comparing how fast they can type. Marsha types 125 words in 7.5 minutes. Josh types 65 words in 3 minutes. Tyler types 400 words in 28 minutes. Order the students according to who can type the fastest.

words per minute

Josh, Marsha, Tyler

Marsha

$\frac{125}{7.5} = 16.\bar{6}$

Josh

$\frac{65}{3} = 21.\bar{6}$

Tyler

$\frac{400}{28} = 14.28$

possible calculators for #37, 38 & 40

possible calculator