Name _____ Date _____

1. Estimate, and then solve using the standard algorithm. You may draw an area model if it helps you.

a. $24 \times 2.31 \approx 20 \times 2 = 40$

$$\begin{array}{r} 2.31 \\ \times\ 24 \\ \hline 924 \\ +4620 \\ \hline 55.44 \end{array}$$

b. $5.42 \times 305 \approx 5 \times 300 = 1506$

$$\begin{array}{r} 5.42 \\ \times 305 \\ \hline 2710 \\ +162600 \\ \hline 1653.10 \end{array}$$

2. Estimate, and then solve using the standard algorithm. Use a separate sheet to draw the area model if it helps you.

a. 1.23×21

$\approx 1 \times 21 = 21$

$$\begin{array}{r} 1.23 \\ \times\ 21 \\ \hline 123 \\ +2460 \\ \hline 25.83 \end{array}$$

b. 3.2×41

$\approx 3 \times 40 = 120$

$$\begin{array}{r} 3.2 \\ \times 41 \\ \hline 32 \\ +128\ 0 \\ \hline 131.2 \end{array}$$

c. 0.32×41

$\approx \frac{1}{2} \times 40 = 20$

$$\begin{array}{r} 0.32 \\ \times\ 41 \\ \hline 032 \\ +1280 \\ \hline 13.12 \end{array}$$

d. 0.54×62

$\approx \frac{1}{2} \times 62 = 31$

$$\begin{array}{r} 0.54 \\ \times\ 62 \\ \hline 108 \\ +3240 \\ \hline 33.48 \end{array}$$

e. 6.09 × 28

≈ 6 × 30 = 180

```
  6.09
 × 28
 4872
12180
170.52
```

f. 6.83 × 683

≈ 7 × 700

= 4900

```
   6.83
 × 683
  2049
 54640
+409800
4664.89
```

g. 6.09 × 208

≈ 6 × 200

= 1200

```
  6.09
 × 208
 4872
+12180 0
1266.72
```

h. 171.76 × 555

≈ 200 × 600

= 120,000

```
  171.76
 ×  555
  85880
 858800
+8588000
95326.80
```

3. Eric walks 2.75 miles to and from work every day for an entire year. How many miles did he walk?

To	From
2.75	2.75

1 day
5.5 miles

```
  365
 ×  5.5
 1825
+1825 0
2007.5
```

Eric walked 2007.5 miles during the year.

NOTE: It is likely students may interpret the problem as Eric walking only 2.75 mi per day. This is understandable! Roll with it.

4. Art galleries often price paintings by the square inch. If a painting measures 22.5 inches by 34 inches and costs $4.15 per square inch, what is the selling price for the painting?

```
 22.5
 × 34
 900
6750
765.0
```

```
  4.15
 × 765
 2075
24900
+29050 0
3174.75
```

$3174.75

5. Gerry spends $1.25 each day on lunch at school. On Fridays she buys an extra snack for $0.55. How much money will she spend in two weeks?

```
 1.25
+ .55
 1.80
```

```
  1.25
 ×   8
 10.00
```

```
 1.80
 × 2
3.60
```

```
  10.00
+  3.60
 13.60
```

$13.60