

11.01.21

Mild Activity Answers

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are four cards.

Use a card to complete each calculation. You can use a card more than once.

$$\boxed{\times 100}$$

$$\boxed{\div 10}$$

$$\boxed{\times 10}$$

$$\boxed{\div 100}$$

$$27 \quad \boxed{\times 10} = 270$$

$$9 \quad \boxed{\div 10} = 0.9$$

$$12 \quad \boxed{\times 100} = 1200$$

$$27 \quad \boxed{\div 10} = 2.7$$

$$9 \quad \boxed{\times 100} = 900$$

$$12 \quad \boxed{\div 10} = 1.2$$

$$27 \quad \boxed{\times 100} = 2700$$

$$9 \quad \boxed{\times 10} = 90$$

$$12 \quad \boxed{\times 10} = 120$$

Main Activity Answers

Greater Depth

7a. A. 220.8; B. 11,110; C. 19.09; D. 6,031

8a. No, because the 1 will move to the hundreds column and the 0 will move from the hundredths (not the tenths) to the tens column.

9a.

	19.098	24.88	100.56
$\times 10$	190.98	248.8	1,005.6
$\times 100$	1,909.8	2,488	10,056
$\times 1,000$	19,098	24,880	100,560

Greater Depth

7b. A. 222.1; B. 908; C. 1,180.9; D. 10,001

8b. No, because the 9 will move to the ones column and the 3 will move to the tenths column.

9b.

	0.122	150.96	65.912
$\times 10$	1.22	1,509.6	659.12
$\times 100$	12.2	15,096	6,591.2
$\times 1,000$	122	150,960	65,912

12.01.21

Mild Activity Answers

Page 15

1. j
 2. g
 3. h
 4. i
 5. l
 6. k
 7. n
 8. m
 9. d
 10. 1200, 12 000; 5200, 52 000
 11. £47, £470
 12. £1500, £1560
- Think. Answers will vary.

Main Activity Answers

Page 17

Answers will vary

1. $2.648 < ? < 2.9$
2. $3.01 < ? < 3.101$
3. $6.7 < ? < 6.95$
4. $4.23 < ? < 5.1$
5. $8.02 < ? < 8.6$
6. $9.341 < ? < 9.56$
7. $3.491 < ? < 3.55$
8. $2.8 < ? < 2.897$
9. $4.07 < ? < 4.6$
10. $3.009 < ? < 3.08$
11. $8.31 < ? < 8.6$
12. $5.609 < ? < 5.67$
13. $8.773 < ? < 8.8$
14. $6.235 < ? < 6.24$
15. $7.042 < ? < 7.4$
16. $1.478 < ? < 1.482$

Think. 15 numbers: 3.4, 3.5, 3.6, 3.45, 3.46, 3.54, 3.56, 3.64, 3.65, 3.456, 3.465, 3.546, 3.564, 3.645, 3.654

Extension Answers

Answers

Have you mastered decimals with three places?

- a. 5.06 5.306 5.365 5.6 5.65 56.3
- b. False $8.047 \times 1000 = 8047$
- True
- False $9.6 \times 100 = 960$
- False $3871 \div 1000 = 3.871$

Champions' Challenge

1. 3.765 14.586 6.758
2. Peter is wrong, the starting number was 86.3 because $0.863 \times 100 \div 1000 = 0.0863$.

14.01

Mild Activity

Page 22

1. $\frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$
2. $\frac{1}{8} \times \frac{1}{2} = \frac{1}{16}$
3. $\frac{1}{7} \times \frac{1}{4} = \frac{1}{28}$
4. $\frac{1}{9} \times \frac{1}{3} = \frac{1}{27}$
5. $\frac{1}{5} \times \frac{1}{2} = \frac{1}{10}$
6. $\frac{1}{8} \times \frac{1}{3} = \frac{1}{24}$
7. $\frac{1}{6} \times \frac{1}{3} = \frac{1}{18}$
8. $\frac{1}{8} \times \frac{1}{4} = \frac{1}{32}$
9. $\frac{1}{5} \times \frac{1}{4} = \frac{1}{20}$
10. $\frac{1}{7} \times \frac{1}{3} = \frac{1}{21}$

Think. Answers will vary, for example, $\frac{1}{2} \times \frac{1}{9}$, $\frac{1}{6} \times \frac{1}{3}$, and so on.

Main Activity

Answers

Have you mastered multiplying pairs of fractions?

- a. $\frac{1}{12} \cdot \frac{1}{30} = \frac{1}{360}$ $\frac{6}{12} = \frac{1}{2}$ $\frac{15}{45} = \frac{1}{3}$
- b. They both ate $\frac{2}{5}$.

Champions' Challenge

1. Any pairs of fractions that, when multiplied together and simplified, equal $\frac{1}{3}$, $\frac{1}{12}$, $\frac{3}{16}$ and $\frac{4}{9}$. e.g. $\frac{2}{3} \times \frac{1}{2} = \frac{2}{6}$ ($\frac{1}{3}$)
2. This is true. Finding a fraction of a fraction gives you a smaller fraction. Multiplying two numbers both of which are less than 1, gives an even smaller answer.

Extension Activity

Q1.

$\frac{3}{5}$ or equivalent

$\frac{1}{3}$ or equivalent

Q2.

$\frac{3}{8}$ m
or equivalent

Q3.

367.5 OR $367\frac{1}{2}$

15.01.21

Arithmetic Answers

15.01.21

Arithmetic

1. $237 \times 4 = 948$

2. $73946 + 21739 = 95685$

3. $60000 - 9 = 59991$

4. $7550 \div 25 = 302$

5. $\frac{7}{12} - \frac{1}{3} = \frac{3}{12} / \frac{1}{4}$

6. $79325 - 56738 = 22587$

7. $\frac{1}{5} + \frac{2}{3} = \frac{13}{15}$

8. $\frac{3}{4}$ of $2468 = 1851$

9. $394 \times 100 = 39400$

10. $2187 \div 1000 = 2.187$

11. $\frac{2}{3} \times \frac{4}{5} = \frac{8}{15}$

12. $3 + 2 \times 6 = 15$

13. 45% of $620 = 279$

14. $374 \times 47 = 17578$

15. $\frac{2}{3} + \frac{6}{18} = \frac{18}{18} = 1$