

Warm-Up

1. $150 \div 5$

30

2. $500 - 297$

$$\begin{array}{r} 500 - 300 \\ 200 \end{array}$$

203

↓ subtract
3 too many
so add on

3. 10% of a number is 20.

What is the number?

$$10\% \times n = 20$$

↓ change to decimal

$$0.10n = 20$$

Solve for n
(by \div both sides
by 0.10)

$$\frac{0.10n}{0.10} = \frac{20}{0.10}$$

$$n = 200$$

Questions from booklet

1) D:c
3:7
part: whole
: 10
how many total of animals
 $3+7=10$
A

2) B: G
7:5
Total 12
 $\times 3$ $\times 3$
21: 15
36
C

3) $\$15 + \$25 = \$40$
Reduced by 25%
 $25\% \text{ of } 40 = \$10$ saved
like \div by 4

4)
A = $\frac{b \times h}{2}$
 $= \frac{3.6 \times 2.7}{2}$
 $= \frac{7.2}{2}$
 $= 3.6$
Total SA
 $= 2A + \text{Rect} + R$
 $= 2(9.1) + 10.8 + 8.1 + 8.1$
 $= 7.2 + 10.8 + 8.1 + 8.1$
 34.2 m^2
D

5) 0.5% of 800,000
1% of 800,000 = 8,000
like \div by 100
 $\div 2$
0.5% of 800,000 = 4,000

7)
 $C^2 = a^2 + b^2$
 $= 90 + 25$
 $= 115 \text{ cm}^2$

8) 4 groups of 3
 $(+4) \times (-3)$
D

9)
 $a^2 = c^2 - b^2$
 $= 20^2 - 16^2$
 $= 400 - 256$
 $a^2 = 144$
 $a = \sqrt{144}$
 $a = 12$
B

10) Bedmas
 $(-6) + (-14) \div (+2)$
 $(-6) + (-7)$
 -13

b) $(+3) \times [(+12) \div (+3)]$
 $(+3) \times (+4)$
 $(+12)$

c) $(+2) + [(-2) \times (+2)] + (-10)$
 $(+2) + (-4) + (-10)$
 $(-2) + (-10)$
 (-12)

d) $(-7) \times (+2) - (-4)$
 $-14 - (-4)$
 $(-14) + (+4)$
 (-10)
V

Write the number sentence that is represented by the number line below.

4 arrows of size (-2)



$$(+4) \times (-2) = -8$$

Write a number sentence for each of the following problems and use a diagram to model them.

1. Michelle withdrew \$25 from her bank account each week for 16 weeks. How much money did she withdraw in total?
2. Mike and his four friends together owe \$12. They agree to share the debt equally. What is each person's share of the debt?

1) $(-25) \times 16 = -400$ withdraw \$400 in total
 ↓ double ↓ half
 -50 x 8

2) 5 friend in total
 $(-12) \div (5) = -2.40$
 Each pay \$2.40

Multiplying and Dividing Integers Rules

same

$$\begin{aligned} (+) \times (+) &= + \\ (-) \times (-) &= + \end{aligned}$$

different

$$\begin{aligned} (-) \times (+) &= - \\ (+) \times (-) &= - \end{aligned}$$

BEDMAS

$$(+5) + (-3) = +2$$

$$(-7) + (-4) = -11$$

Ex1)

$$\begin{aligned} (+2) + (-3) \times (-7) \\ (+2) + (+21) \\ (+23) \end{aligned}$$

Solve:

$$\begin{aligned} & (-2) \times (6) \times (-7) \\ & \underbrace{(-2) \times (6)}_{(-12)} \times (-7) \\ & = (+84) \end{aligned}$$

Solve:

$$-350 \div -70$$

$$= (+5)$$

Solve:

$$\frac{-4 + 10 \div -2}{12 - 3}$$

$$\begin{array}{l} \text{Top} \quad (-4) + \underbrace{(+10) \div (-2)} \\ \quad \quad (-4) + \underbrace{(-5)} \\ \quad \quad \quad -9 \end{array}$$

$$\begin{array}{l} \text{Bottom} = 12 - 3 \\ \quad \quad = (+9) \end{array}$$

$$\begin{array}{l} \frac{\text{Top}}{\text{Bottom}} = \frac{(-9)}{+9} \\ \quad \quad = (-1) \end{array}$$

The sum of two integers -2.

The product of the same two integers is -24.

What are the two integers? Explain your reasoning.

$$(x) + (y) = -2 \quad \leftarrow \text{Bigger number had to be (-)}$$

$$(x)(y) = (-24)$$

$$\begin{array}{l} + \\ - \end{array} \quad \begin{array}{l} -6, +4 \checkmark \\ -8, +3 \end{array}$$

$$+1, -24$$

$$+2, -12$$

-6, +4 are the two integers

Integer Review

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