

$$\begin{aligned}
 1. \text{ perimeter} &= 2l + 2w \\
 &= (2 \cdot 5) + (2 \cdot 3) \\
 &= 10 + 6 \\
 &= 16 \text{ ft}
 \end{aligned}$$

$$\begin{aligned}
 2. \text{ area} &= lw \\
 &= 3 \cdot 5 \\
 &= 15 \text{ ft}^2
 \end{aligned}$$

3. divisible by three: sum of digits in number is divisible by three
divisible by four: last two numbers divisible by four

FOR 1872

$$\frac{1+8+7+2}{3} = \frac{18}{3} = 6$$

$$\begin{array}{r}
 18 \\
 4 \overline{) 72} = 18 \\
 \underline{4} \\
 32
 \end{array}$$

$$4. 7 \text{ cm} \cdot \frac{1}{3} = \frac{7}{3} = 2 \frac{1}{3} \text{ cm}$$

$$\begin{array}{r}
 2.7 \quad 0 \quad \frac{8}{2} \quad -2.7 \quad \frac{8}{3} \\
 2.7 \quad 0 \quad 4 \quad -2.7 \quad 2.6
 \end{array} =$$

in order from largest to smallest:

$$\frac{8}{2}, 2.7, \frac{8}{3}, 0, -2.7$$

$$6. \frac{200 \text{ feet}}{25 \frac{\text{feet}}{\text{min}}} = 8 \text{ minutes}$$

$$7. \frac{96 \text{ students}}{8 \text{ teachers}} = \frac{12}{8 \overline{) 96}} = 12 \text{ students per class}$$

8. Tad	Sheldon	Nemo	Pearl	Cathy
1	2	3	4	5
	Pearl	Cathy		
	Nemo	Pearl	Cathy	
	Nemo	Pearl	Cathy	

9. Three digit primes:

101, 103, 107, 109, 113, 127, 131 ...

↑
6th

10. on each try he move forward a total of $(18-3)$ ft, or 15 feet.

$$75 \text{ feet} \div 15 \text{ feet per try} = 5 \text{ tries}$$

11. I. 63 is not prime, so false

II. true

III. $27 \cdot \frac{1}{3} = 9$, so true

IV. $42 \text{ inches} \div 12 = 3.5$, so true.

Therefore, three of the statements are true

$$\begin{array}{r}
 12. \quad \frac{8}{2.4} \quad \frac{9}{\text{larger than first digit}} \quad \frac{2}{9 \cdot x = 11} \quad \frac{4}{x = 2}
 \end{array}$$

$$13. \frac{(2+4 \times 6)}{(7-5)} = \frac{2+24}{2} = \frac{26}{2} = 13 \text{ (B)}$$

$$14. 36 \times \frac{2}{4} = 18 \quad 36 \cdot \frac{1}{3} = 12$$

$$36 - (18 + 12) = 36 - 30 = 6 \text{ (A)}$$

15. (C)

$$16. \text{ volume} = 2 \text{ ft} \times 1.5 \text{ ft} \times 3 \text{ ft} = 9 \text{ ft}^3 \text{ (C)}$$

$$17. 85^\circ - 17^\circ = 68^\circ \text{ (A)}$$

$$18. 13 + 36 + 27 = 76$$

$$100 - 76 = 24 \text{ (B)}$$

$$19. \text{ area of square} = 4 \times 4 = 16 \text{ in squared}$$

$$30 \text{ seconds} \times 16 = 480 \text{ seconds}$$

$$480 \div 60 = 8 \text{ minutes (C)}$$

$$20. \text{ area} = \pi r^2$$

$$\text{circumference} = 2\pi r$$

$$6\pi = 2\pi r$$

$$r = 3$$

$$\text{area} = \pi(3^2)$$

$$= 3^2 \pi$$

$$= 9\pi \text{ (C)}$$

$$21. 60 \div 3 = 20$$

$$20 \times 10 = 200 \text{ bubbles (C)}$$

$$\begin{array}{r}
 22. \quad \frac{2}{2 \cdot 1} \quad \frac{4}{2 \cdot 2} \quad \frac{8}{2 \cdot 2 \cdot 2} \quad \dots \quad \frac{2^8}{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2} = 256
 \end{array}$$

(B)