

Name: Key

1. What is the value of $(8^2 - 15) \div 8 \times 3^4$? PE MA
 $\downarrow \downarrow$
 $(64 - 15) \div 8 \times 3^4$

$$(64 - 15) \div 8 \times 3^4$$

$$49 \div 8 \times 3^4$$

$$49 \div 8 \times 81$$

$$6.125 \times 81 = \boxed{496.125}$$

2. Which expression is equivalent to $12g - 18h$?

- a. $6(2g - 18h)$ b. $6(2g - 3h)$ c. $6(6g - 12h)$ d. $6(6g - 18h)$

3. Mary has an after school job. She earns \$9.75 per hour. She has worked 15 hours per week for 6 weeks. How much money has she earned?

$$9.75(15)(6) = \boxed{\$877.50}$$

4. Jake will cut a candy bar that is $6\frac{1}{4}$ inches long into $\frac{1}{8}$ inch sections. How many sections will result?

$$6\frac{1}{4} \div \frac{1}{8} = \frac{25}{4} \times \frac{8}{1} = \boxed{50}$$

5. Kim and Michelle are debating the answer to the equation $\frac{3}{5}x = \frac{1}{6} \cdot \frac{5}{3}$. $\frac{3}{5}x = \frac{1}{6} \cdot \frac{5}{3}$

Michelle
 - Kim states that x is equal to $\frac{5}{18}$

Kim
 - Michelle states that x is equal to $3\frac{3}{5}$

$$x = \frac{5}{18}$$

Which statement is true?

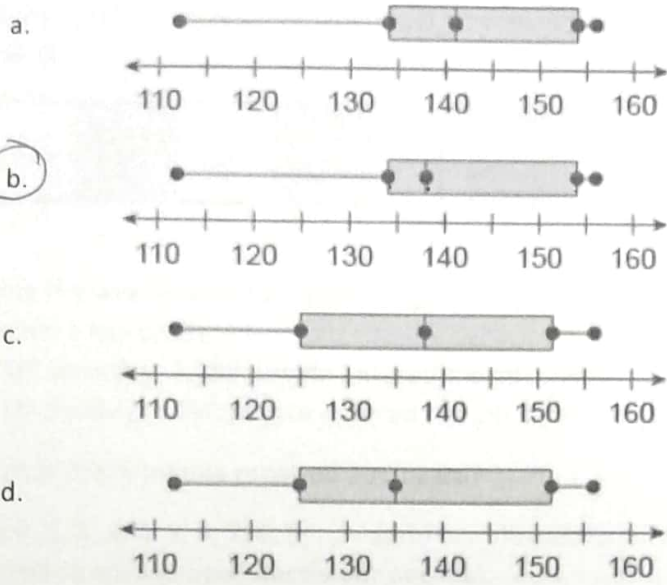
- a. Michelle's answer of $\frac{5}{18}$ is correct because she used the multiplicative inverse by multiplying $\frac{1}{6}$ by $\frac{5}{3}$ to get her answer. $\frac{5}{18}$
- b. Michelle's answer of $\frac{1}{10}$ is correct because she multiplied $\frac{1}{6}$ by $\frac{3}{5}$ to get her answer.
- c. Kim's answer of $3\frac{3}{5}$ is correct because she used the multiplicative inverse by multiplying $\frac{3}{5}$ by 6 to get her answer.
- d. Kim's answer of $3\frac{3}{5}$ is correct because she divided $\frac{3}{5}$ by $\frac{1}{6}$ to get her answer.

6. Troy pays \$450 each month to rent his apartment. He earns \$35 per hour at his job. Which equation represents Troy's profit, y, for working x hours?

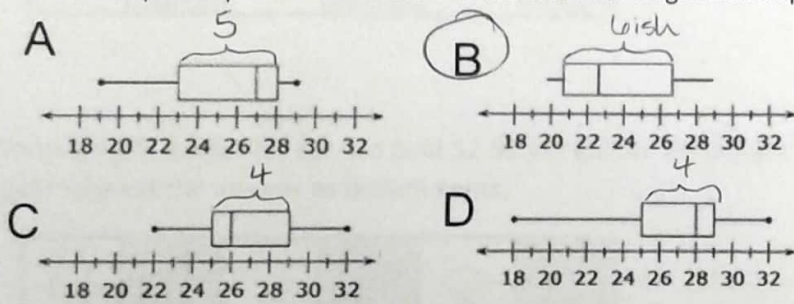
- a. $y = 35x - 450$
- b. $y = 35x + 450$
- c. $y = 35 + 450x$
- d. $y = 35 - 450x$

7. Which box plot represents the data? ~~135, 149, 156, 112, 134, 141, 154, 116, 134, 156~~

$112, 116, 134, 134, 135 | 141, 149, 154, 156, 156$
 \uparrow Q_1 \downarrow Q_3
 $med = \frac{135 + 141}{2} = 138$



8. Which box plot represents the set of data with the largest interquartile range?



9. Which ordered pair represents a reflection of the point $(-4, 7)$ across the x -axis?

- a. $(-4, 7)$ b. $(4, 7)$ c. $(4, -7)$ **d. $(-4, -7)$**

x stays the same
 y changes to opposite

10. Which statement is true?

- ~~a. $9.3 < 9.03$~~ ~~b. $0.09 < 0.009$~~ **c. $3.\bar{6} < 3.67$** ~~d. $0.0\bar{4} < 0.04$~~

11. Sarah walks the same number of miles to school, x , each school day. Her total distance for one school week (5 days) is less than 10 miles. Which inequality represents how many miles Sarah walks each day?

- a. $5x < 10$** b. $5x > 10$ c. $x + 5 < 10$ d. $x + 5 > 10$

12. What is the value of $(7x + \frac{1}{3})^2$ when $x = 1$? $(7(1) + \frac{1}{3})^2 = (7\frac{1}{3})^2 = (\frac{22}{3})^2 = 53\frac{7}{9}$
 Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer.
 Answers that are mixed numbers must be entered as an improper fraction or decimal. $= \frac{484}{9}$

4	8	4	/	9	
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13. During the weekend at the Wells Fargo Championship golf tournament every 40th person to enter the gift shop received a key chain.

- On Saturday, 1,350 people entered the gift shop.
- On Sunday, 1,690 people entered the gift shop.

$$\frac{1350}{40} = 33\frac{3}{4} = 33 \text{ people}$$

$$\frac{1690}{40} = 42\frac{1}{4} = 42 \text{ people}$$

How many people received a gift card?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Answers that are mixed numbers must be entered as an improper fraction or decimal.

$$33 + 42 = 75$$

7	5				
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14. John bought gas for his car. He paid \$2.89 per gallon. He bought 14.7 gallons. What was the total cost for John's gas? Express the answer as dollars.cents.

4	2	.	4	8	
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$$\begin{array}{r} 14.7 \\ \times 2.89 \\ \hline 42.483 \end{array} = \$42.48$$

15. What is the value of $13,408 \div 10^4$?

1	.	3	4	0	8
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$$13408 \div 10000$$

$$13408$$

16. Sam has $3\frac{1}{4}$ cups of sugar. He is making a recipe that calls for $\frac{1}{8}$ cup of sugar. What is the maximum number of times Sam can complete the recipe?

2	6				
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$$3\frac{1}{4} \div \frac{1}{8}$$

$$1 \frac{13}{4} \times \frac{8}{1} = 26$$