Name _____

Bobcats & Lions Math Final Exam 2020-2021

Name _____

Choose the correct answer.

1. Which number is closest to $\frac{2}{10}$?

   A 0 C 1

   B $\frac{1}{2}$ D $1\frac{1}{2}$

2. Which is the best estimate?

   $\frac{1}{12} + \frac{5}{9}$

   F 0 H 1

   G $\frac{1}{2}$ J $1\frac{1}{2}$

3. Which is the estimated difference?

   $\frac{9}{10} - \frac{1}{8}$

   A 0 C 1

   B $\frac{1}{2}$ D $1\frac{1}{2}$

For 4–8, find the sum or difference in simplest form.

4. $\frac{2}{9} + \frac{4}{9}$

   F $\frac{6}{18}$ H $\frac{5}{9}$

   G $\frac{2}{3}$ J $\frac{7}{9}$

5. $\frac{7}{8} - \frac{3}{8}$

   A $\frac{3}{8}$ C $\frac{1}{2}$

   B $\frac{10}{16}$ D $\frac{1}{4}$

6. $\frac{3}{16} + \frac{1}{8}$

   F $\frac{4}{16}$ H $\frac{4}{24}$

   G $\frac{1}{6}$ J $\frac{5}{16}$

7. $1 - \frac{2}{7}$

   A $1\frac{2}{7}$ C $\frac{5}{7}$

   B $1\frac{1}{7}$ D $\frac{1}{7}$

8. $\frac{3}{4} - \frac{2}{3}$

   F $\frac{1}{24}$ H $\frac{1}{8}$

   G $\frac{1}{12}$ J $\frac{1}{7}$

For 9–10, work backward to solve.

9. Hannah told Corey to choose a number, multiply it by 6, add 8, divide by 2, and subtract 4. Corey said he got 9. What was Corey's starting number?

   A 3 C 5

   B 4 D 6

10. Alvin spent $9 on art supplies and $8 on notebooks, pens, and pencils. He returned an item at the store and received $11. Alvin had $15 at the end of his shopping. How much did he have to start?

    F $24 H $22

    G $23 J $21

Go On

11. $2\frac{3}{4} + 3\frac{1}{3}$

A $5\frac{13}{24}$ C $5\frac{5}{6}$

B $5\frac{4}{7}$ D $6\frac{1}{12}$

12. Find the value of n for $n + 2\frac{2}{9} = 9$.

F $6\frac{5}{9}$ H $7\frac{7}{9}$

G $6\frac{7}{9}$ J $11\frac{2}{9}$

13. $8\frac{11}{12} - 2\frac{1}{4}$

A $6\frac{10}{8}$ C $6\frac{2}{3}$

B $6\frac{8}{12}$ D $6\frac{1}{3}$

14. Find the value of n for $n - 2\frac{3}{7} = 3\frac{4}{7}$.

F 7 H 5

G 6 J $1\frac{1}{7}$

For 15–18, find the sum or difference in simplest form.

15. $7\frac{1}{6} - 3\frac{7}{12}$

A $3\frac{7}{24}$

B $3\frac{7}{12}$

C $4\frac{5}{12}$

D $4\frac{1}{2}$

16. $4\frac{7}{8} + 5\frac{3}{4}$

F $10\frac{5}{8}$

G $9\frac{13}{16}$

H $9\frac{5}{6}$

J $9\frac{5}{8}$

17. $7\frac{1}{3} - 4\frac{3}{4}$

A $2\frac{7}{24}$ C $2\frac{7}{12}$

B $2\frac{5}{12}$ D $3\frac{5}{12}$

18. $\frac{1}{7} + 2\frac{1}{2} + 3\frac{5}{7}$

F $5\frac{5}{14}$ H $6\frac{2}{7}$

G $5\frac{7}{16}$ J $6\frac{5}{14}$

For 19–20, use the table.

At Barry's Bagels, Barry records how many dozen of each type of bagel are sold every day. Some entries are missing from his record book for today's sales.

BAGEL SUPPLY (IN DOZENS)			
Type	Start	Sold	Remaining
Plain	$2\frac{2}{3}$	$1\frac{1}{4}$	
Wheat	$4\frac{1}{2}$		$2\frac{1}{4}$
Raisin			$1\frac{1}{3}$
Total	10		

19. How many dozen bagels were remaining at the end of the day?

A 3 dozen C 5 dozen

B 4 dozen D $5\frac{1}{12}$ dozen

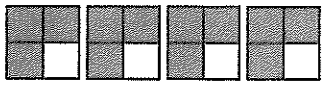
20. How many dozen wheat bagels were sold by the end of the day?

F $2\frac{1}{4}$ dozen H $3\frac{1}{2}$ dozen

G 3 dozen J $3\frac{2}{3}$ dozen

Go On

21. Which is the number sentence represented by the model?



A $4 \times \frac{1}{2} = 2$
C $1 \times \frac{1}{4} = \frac{1}{4}$
B $4 \times \frac{3}{4} = 3$
D $1 \times \frac{3}{4} = \frac{3}{4}$

22. Choose <, >, or = for ●.

$\frac{1}{7} \times 28 \bullet \frac{2}{7} \times 14$

F <
G >
H =

23. $\frac{2}{9} \times 36$

A 8
C 6
B 7
D 4

For 24–28, multiply. Find the answer in simplest form.

24. $\frac{1}{4} \times \frac{2}{7}$

F $\frac{3}{11}$
H $\frac{3}{28}$
G $\frac{2}{14}$
J $\frac{1}{14}$

25. $\frac{7}{9} \times 1\frac{1}{2}$

A $\frac{3}{18}$
C $1\frac{7}{18}$
B $1\frac{1}{6}$
D $1\frac{5}{9}$

26. $2\frac{2}{5} \times \frac{3}{4}$

F $2\frac{3}{10}$
H $1\frac{4}{5}$
G $2\frac{1}{10}$
J $1\frac{7}{20}$

27. $2\frac{3}{4} \times 3\frac{1}{3}$

A $9\frac{1}{6}$
C $6\frac{1}{12}$
B 9
D $6\frac{1}{4}$

28. $2\frac{3}{5} \times 1\frac{3}{4}$

F $2\frac{9}{20}$
H $3\frac{3}{10}$
G $2\frac{11}{20}$
J $4\frac{11}{20}$

For 29–30, use the following information.

Transparent tape was invented 21 years before correction fluid. Correction fluid was invented in 1951. The typewriter was invented 63 years before transparent tape. Stick-on notes were invented 44 years after transparent tape.

29. Which invention's date will you use to find the dates of all the others?
A transparent tape
B correction fluid
C typewriter
D stick-on notes

30. Which lists the inventions from earliest to latest?

F typewriter, transparent tape, correction fluid, stick-on notes
G stick-on notes, correction fluid, transparent tape, typewriter
H transparent tape, correction fluid, stick-on notes, typewriter
J correction fluid, transparent tape, stick-on notes, typewriter

Go On

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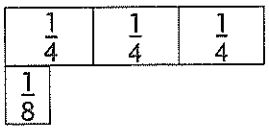
31. Which division sentence matches the model?



A $\frac{3}{4} \div \frac{1}{8} = 6$

B $\frac{1}{8} \div \frac{3}{4} = \frac{1}{2}$

C $\frac{3}{4} \div \frac{1}{8} = 4$

D $\frac{1}{8} \div \frac{3}{4} = \frac{1}{6}$

32. How many thirds are in 9?

F 27

G 18

H 7

J 3

33. The concession stand has $\frac{2}{3}$ cup of sprinkles. If each ice cream sundae takes $\frac{1}{12}$ cup of sprinkles, how many sundaes can the stand make?

A 6 sundaes

B 7 sundaes

C 8 sundaes

D 9 sundaes

For 34–35, divide.

34. $1\frac{2}{3} \div 2\frac{3}{5}$

F $\frac{20}{39}$

G $\frac{25}{39}$

H $4\frac{1}{3}$

J $11\frac{1}{5}$

35. $\frac{7}{12} \div \frac{3}{4}$

A $2\frac{2}{7}$

B $1\frac{2}{7}$

C $\frac{7}{9}$

D $\frac{7}{16}$

For 36–37, divide. Find the answer in simplest form.

36. $16 \div \frac{4}{7}$

F $\frac{1}{28}$

G $9\frac{1}{7}$

H 24

J 28

37. $25 \div \frac{5}{9}$

A 45

B $13\frac{8}{9}$

C $\frac{9}{125}$

D $\frac{1}{45}$

38. Which fractions are NOT reciprocals?

F $\frac{1}{5}$ and $\frac{5}{1}$

G $2\frac{1}{8}$ and $\frac{8}{11}$

H $1\frac{3}{7}$ and $\frac{7}{10}$

J $\frac{7}{9}$ and $\frac{9}{7}$

39. Use reciprocals to write a multiplication problem for the division.

$3\frac{2}{9} \div 1\frac{2}{3}$

A $\frac{29}{9} \times \frac{5}{3}$

B $\frac{9}{29} \times \frac{3}{5}$

C $\frac{29}{9} \times \frac{3}{5}$

D $\frac{9}{29} \times \frac{3}{8}$

40. The Music Store has 30,000 CDs. If $\frac{1}{5}$ of the CDs are classical, how many CDs are NOT classical?

F 26,000 CDs

G 24,000 CDs

H 8,000 CDs

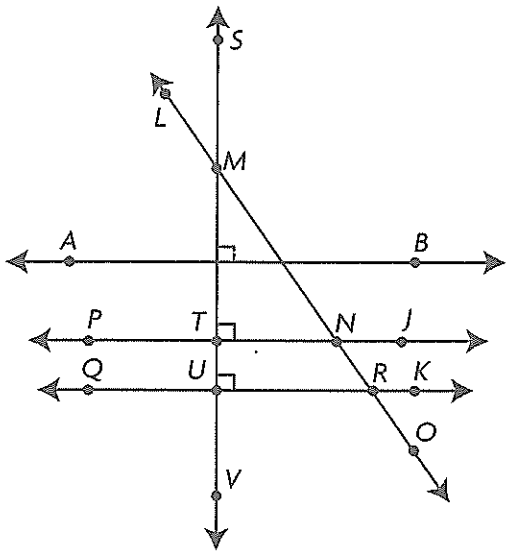
J 6,000 CDs

Stop

Name _____

Choose the correct answer.

For 1–6, use the figure below.



1. Which are intersecting lines?

   A $\overleftrightarrow{AB}$ and $\overleftrightarrow{PJ}$ C $\overleftrightarrow{QK}$ and $\overleftrightarrow{PJ}$
   B $\overleftrightarrow{LO}$ and $\overleftrightarrow{SV}$ D $\overleftrightarrow{QK}$ and $\overleftrightarrow{AB}$

2. Which is NOT a right angle?

   F $\angle MTN$ H $\angle KRO$
   G $\angle QUV$ J $\angle PTM$

3. Which is NOT an acute angle?

   A $\angle SMN$ C $\angle TNM$
   B $\angle KRO$ D $\angle NRU$

4. Which are parallel lines?

   F $\overleftrightarrow{LO}$ and $\overleftrightarrow{SV}$ H $\overleftrightarrow{QK}$ and $\overleftrightarrow{LO}$
   G $\overleftrightarrow{PJ}$ and $\overleftrightarrow{SV}$ J $\overleftrightarrow{QK}$ and $\overleftrightarrow{PJ}$

5. Which are perpendicular lines?

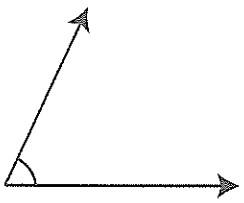
   A $\overleftrightarrow{AB}$ and $\overleftrightarrow{PJ}$ C $\overleftrightarrow{SV}$ and $\overleftrightarrow{PJ}$
   B $\overleftrightarrow{LO}$ and $\overleftrightarrow{SV}$ D $\overleftrightarrow{QK}$ and $\overleftrightarrow{PJ}$

6. Which is an obtuse angle?

   F $\angle QUV$ H $\angle KRO$
   G $\angle MNJ$ J $\angle TNM$

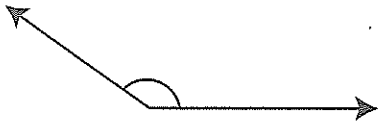
For 7–8, use a protractor to measure each angle.

7.



   A 55° C 70°
   B 65° D 115°

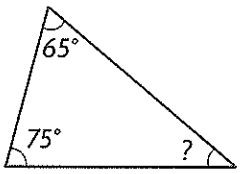
8.



   F 350° H 170°
   G 185° J 145°

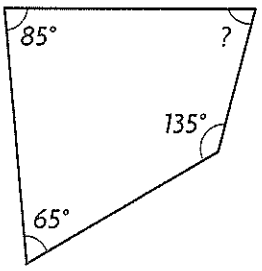
For 9–10, find the measure of each unknown angle.

9.



   A 55° C 45°
   B 50° D 40°

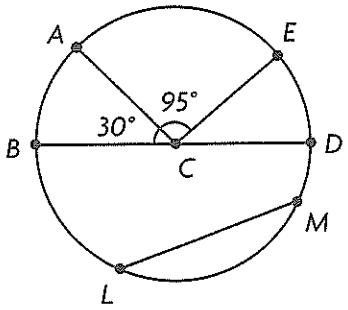
10.



   F 75° H 85°
   G 80° J 90°

Go On

For 11–14, use the circle.



11. Which is a chord?

A $\overline{LM}$ C $\overline{AC}$
B $\overline{DC}$ D $\overline{EC}$

12. Which is NOT a radius?

F $\overline{AC}$ H $\overline{CD}$
G $\overline{BC}$ J $\overline{LM}$

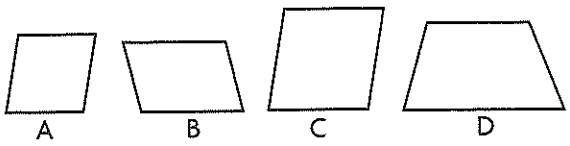
13. Which is a diameter?

A $\overline{AC}$ C $\overline{LM}$
B $\overline{BD}$ D $\overline{EC}$

14. What is the measure of $\angle ECD$?

F 45° H 55°
G 50° J 60°

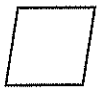
For 15–16, use these figures.



15. Which two figures are similar?

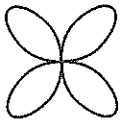
A A and B C A and D
B A and C D D and C

16. Which figure is congruent to the one below?



F A H C
G B J D

17. This figure has rotational symmetry. Tell the fraction and angle measure of the turn.



A $\frac{3}{4}$ turn, 180° C $\frac{1}{3}$ turn, 60°
B $\frac{1}{2}$ turn, 90° D $\frac{1}{4}$ turn, 90°

18. Consider the letters L, M, O, P, Q, R, S, T, U, V, and W. Which do NOT have line symmetry?

F O, P, Q H R, S, T
G M, R, P J L, P, Q, R, S

For 19–20, solve each problem.

19. What are the next two symbols for this pattern?
$\cup \uparrow \subset \rightarrow \cap$

A $\downarrow \supset$ C $\supset \downarrow$
B $\supset \leftarrow$ D $\leftarrow \cup$

20. What are the next three items in the sequence? 3 ? 6 ! 9 ? 12 ! 15 ? 18 !

F 21 ! 24 H 21 ! 25
G 21 ? 24 J 21 ? 25

Stop