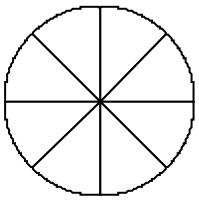
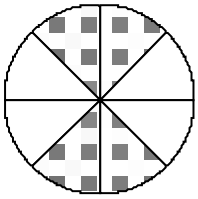
Math 7 - 5.1

Multiple Choice
Identify the choice that best completes the statement or answers the question.

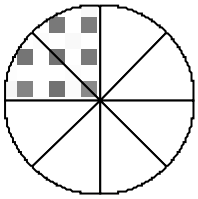
1. Shade $\frac{1}{4}$ of this circle.



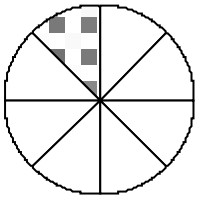
A)



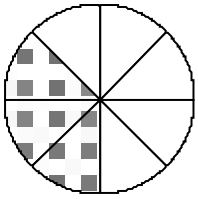
B)



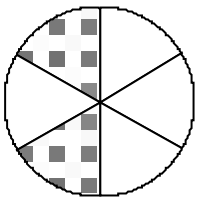
C)



D)



2. What fraction of this circle is shaded?



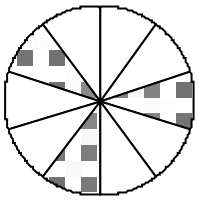
A) $\frac{1}{3}$

B) $\frac{1}{8}$

C) $\frac{1}{4}$

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

3. What fraction of this circle is shaded?



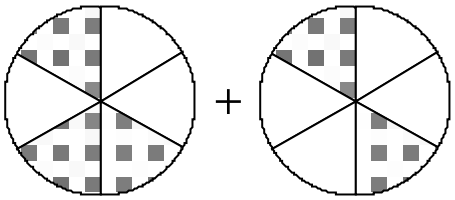
A) $\frac{3}{7}$

B) $\frac{3}{8}$

C) $\frac{3}{10}$

D) $\frac{7}{10}$

4. Find the sum of the fractions modelled by these fraction circles.



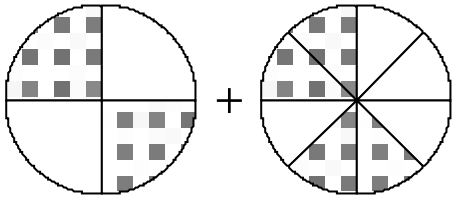
A) $\frac{3}{8}$

B) $\frac{2}{3}$

C) $\frac{1}{2}$

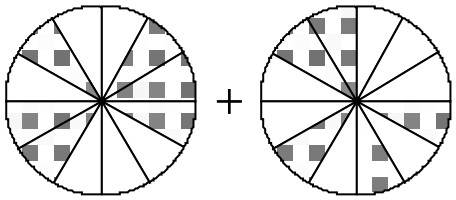
D) $\frac{5}{6}$

5. Find the sum of the fractions modelled by these fraction circles.



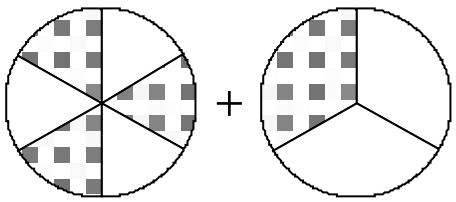
A) 1
B) $\frac{3}{4}$
C) $1\frac{1}{2}$
D) $\frac{1}{2}$

6. Find the sum of the fractions modelled by these fraction circles.



A) $1\frac{1}{10}$
B) $\frac{5}{12}$
C) $\frac{1}{12}$
D) $\frac{11}{12}$

7. Find the sum of the fractions modelled by these fraction circles.



A) $\frac{2}{3}$
B) $\frac{4}{9}$
C) $\frac{1}{6}$
D) $\frac{5}{6}$

8. Add: $\frac{1}{6} + \frac{1}{12}$

   A) $\frac{1}{36}$

   B) $\frac{1}{4}$

   C) $\frac{1}{3}$

   D) $\frac{1}{18}$

9. Add: $\frac{3}{8} + \frac{1}{2}$

   A) $\frac{5}{12}$

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

   C) $\frac{5}{8}$

   D) $\frac{7}{8}$

10. Add: $\frac{5}{6} + \frac{11}{12}$

    A) $\frac{8}{9}$

    B) $1\frac{1}{3}$

    C) $1\frac{3}{4}$

    D) $2\frac{2}{3}$

11. Which 2 sums are greater than 1?

    P: $\frac{1}{10} + \frac{8}{10}$

    Q: $\frac{6}{7} + \frac{5}{7}$

    R: $\frac{2}{5} + \frac{3}{5}$

    S: $\frac{7}{8} + \frac{1}{4}$

    A) R and S
    B) Q and S
    C) P and S
    D) P and R

12. Joshua spent $\frac{1}{2}$ of his money on DVDs and $\frac{1}{3}$ on food.

What fraction of his money did Joshua spend?

A) $\frac{1}{5}$

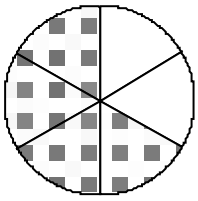
B) $\frac{5}{6}$

C) $\frac{1}{6}$

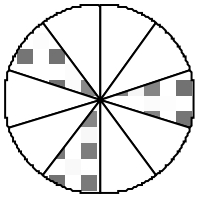
D) $\frac{2}{5}$

Short Answer

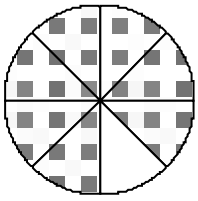
13. What fraction of this circle is shaded?



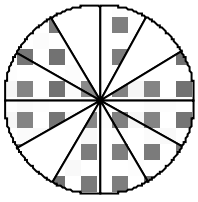
14. What fraction of this circle is shaded?



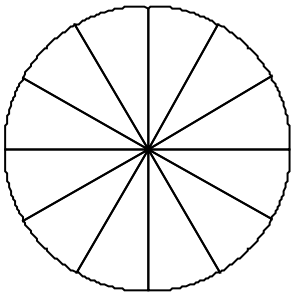
15. What fraction of this circle is shaded?



16. What fraction of this circle is shaded?

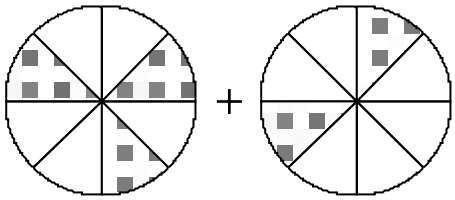


17. Shade $\frac{3}{4}$ of this circle.

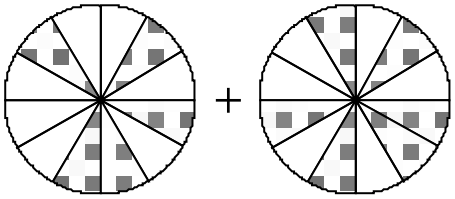


18. Which fraction is greater, $\frac{10}{11}$ or $\frac{9}{11}$?

19. Find the sum of the fractions modelled by these fraction circles.



20. Find the sum of the fractions modelled by these fraction circles.



21. Add: $\frac{3}{8} + \frac{11}{16}$

.

22. Add: $\frac{3}{4} + \frac{3}{8}$

23. Add: $\frac{1}{2} + \frac{1}{4} + \frac{5}{8}$

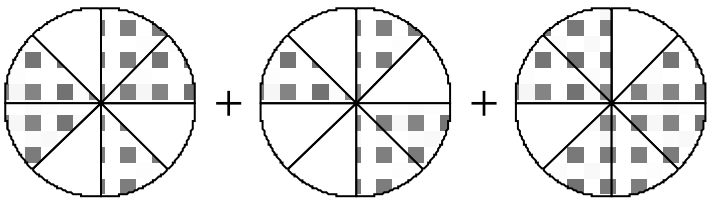
.

24. Cheryl spends an average of 10 min per day answering e-mails and 40 min per day calling friends.
    a) Is the total time spent answering e-mails and calling friends more or less than an hour?

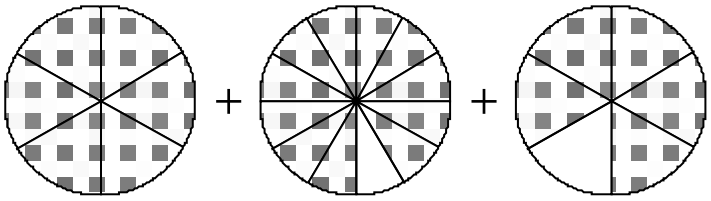
    b) Express the total time spent as a fraction of an hour.

Problem

25. Find the sum of the fractions modelled by these fraction circles.



26. Find the sum of the fractions modelled by these fraction circles.



27. Add: $\frac{1}{5} + \frac{1}{6} + \frac{1}{30}$

.

28. A box contains 36 candies. Saroj took 18 candies and Peter took 12 candies.
    a) What fraction of the candies did each person take?

    b) What fraction of the candies were left?

29. A box contains 24 granola bars. Ms. Davies took $\frac{1}{2}$ of the bars and Mr. Grant took $\frac{1}{4}$ of the bars.

a) What fraction of the granola bars did Ms. Davies and Mr. Grant take?

b) How many granola bars were taken from the box?

Math 7 - 5.1
Answer Section

MULTIPLE CHOICE

1. ANS: B PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
2. ANS: A PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
3. ANS: C PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
4. ANS: D PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
5. ANS: A PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
6. ANS: D PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
7. ANS: D PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
8. ANS: B PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
9. ANS: D PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
   LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
10. ANS: C PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
    LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
11. ANS: B PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
    LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
12. ANS: B PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
    LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

SHORT ANSWER

13. ANS: $\frac{2}{3}$

    PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
    LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
14. ANS: $\frac{3}{10}$

    PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
    LOC: 7.N5 TOP: Number KEY: Conceptual Understanding
15. ANS: $\frac{7}{8}$

PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

16. ANS:
$\frac{3}{4}$

PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

17. ANS:
Shade any 9 sectors.

PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

18. ANS:
$\frac{10}{11}$ is greater.

PTS: 1 DIF: Easy REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

19. ANS:
$\frac{5}{8}$

PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

20. ANS:
$\frac{11}{12}$

PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

21. ANS:
$1\frac{1}{16}$

PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

22. ANS:
$1\frac{1}{8}$

PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

23. ANS:
$1\frac{3}{8}$

PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions

LOC: 7.N5 TOP: Number KEY: Problem-solving Skills

24. ANS:

a) The total time spent is 50 min, which is less than an hour.

b) The total time spent is $\frac{5}{6}$ h.

PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Problem-solving Skills

PROBLEM

25. ANS:

$1\frac{7}{8}$

PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

26. ANS:

$2\frac{3}{4}$

PTS: 1 DIF: Moderate REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Conceptual Understanding

27. ANS:

$\frac{6}{30} + \frac{5}{30} + \frac{1}{30} = \frac{12}{30}$

$\frac{12}{30} = \frac{2}{5}$

PTS: 1 DIF: Difficult REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Problem-solving Skills

28. ANS:

a) Saroj: $\frac{18}{36} = \frac{1}{2}$

Peter: $\frac{12}{36} = \frac{1}{3}$

Saroj took $\frac{1}{2}$ of the candies and Peter took $\frac{1}{3}$ of the candies.

b)

.

PTS: 1 DIF: Difficult REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Problem-solving Skills

29. ANS:

a) $\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$

The fraction of granola bars taken was $\frac{3}{4}$.

b) Eighteen granola bars were taken from the box.

PTS: 1 DIF: Difficult REF: 5.1 Using Models to Add Fractions
LOC: 7.N5 TOP: Number KEY: Problem-solving Skills